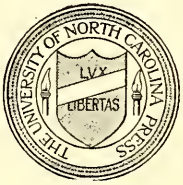
THE UNIVERSITY OF NORTH CAROLINA

THE ONE HUNDRED AND THIRTIETH SESSION



The Catalogue
1923-1924

ANNOUNCEMENTS FOR
1924-1925

1924

JANUARY						
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1925

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CALENDAR

1924

June 8-11	*Sunday to Wednesday.* Commencement.
June 13-August 15	Summer School of Law.
June 13-July 25	Summer Quarter, First Term.
July 26-September 4	Summer Quarter, Second Term.
September 10-13	*Wednesday to Saturday.* Examinations for Removal of Conditions. Entrance Examinations.
September 16 and 17	*Tuesday and Wednesday.* Registration for Fall Quarter.
September 18	*Thursday.* Fall Quarter begins.
October 11	*Saturday.* University Day Exercises.
November 26	*Wednesday.* Thanksgiving Recess begins (1:00 P. M.).
December 1	*Monday.* Thanksgiving Recess ends (8:30 A. M.).
December 17	*Wednesday.* Fall Quarter Examinations begin.
December 20	*Saturday.* Fall Quarter ends. Christmas Recess begins.

1925

January 5	*Monday.* Registration for Winter Quarter completed.
January 6	*Tuesday.* Winter Quarter begins.
February 2	*Monday.* Candidates for Mangum Medal Announce Subjects to their Respective Deans.
March 17	*Tuesday.* Winter Quarter Examinations begin.
March 20	*Friday.* Winter Quarter ends.
March 21	*Saturday.* Spring Quarter begins. Registration for Spring Quarter completed.
April 11	*Saturday.* Easter Recess begins (1:00 P. M.).
April 20	*Monday.* Easter Recess ends (8:30 A. M.).
May 2	*Saturday.* Selection of Commencement Orators.
June 2	*Tuesday.* Spring Quarter Examinations begin.
June 5	*Friday.* Spring Quarter Examinations end.
June 7-10	*Sunday to Wednesday.* Commencement Exercises.
June 9	*Tuesday.* Alumni Day. Meeting of the Board of Trustees.
June 10	*Wednesday.* Commencement Day.

TABLE OF CONTENTS

PART ONE PAGE

Board of Trustees 5
Committees of the Trustees 8
Officers of Administration 9
Officers of Instruction 11
Faculty Committees 24

PART TWO

The University 26
Grounds and Buildings 32
The University Library 43
The University Press 46
Admission 48
Expenses 61
Pecuniary Aid 65
Medals and Prizes 70
Regulations 72
Student Government 84
Public Lectures 86
University Organizations 91
The General Alumni Association 100

PART THREE

Courses of Instruction 103

PART FOUR

College of Liberal Arts 190
School of Applied Science 200
School of Engineering 205
School of Education 210
School of Commerce 217
School of Public Welfare 232
Graduate School 239
Summer School 249
Extension Division 265

PART FIVE

School of Law 278
School of Medicine 288
School of Pharmacy 299

PART SIX

Commencement 307

PART ONE—OFFICERS

BOARD OF TRUSTEES
OFFICERS OF ADMINISTRATION
OFFICERS OF INSTRUCTION
FACULTY COMMITTEES

TRUSTEES

CAMERON MORRISON, Governor, President *ex officio* of the Board of Trustees.
ARCH TURNER ALLEN, Superintendent of Public Instruction, member *ex officio* of the Board of Trustees.
HENRY MAUGER LONDON, Secretary of the Board.

MEMBERS OF THE BOARD

1925*

Perrin Busbee	Wake
Julian Shakespeare Carr	Durham
Josephus Daniels	Wake
William Dunn, Jr.	Craven
Alexander Hawkins Graham	Orange
Augustus Washington Graham	Granville
George Chancellor Green	Halifax
Harry Percy Grier	Iredell
Harry P. Harding	Mecklenburg
Luther Thompson Hartsell	Cabarrus
John Wetmore Hinsdale, Jr.	Wake
Franklin P. Hobgood**	Granville
William Stamps Howard	Edgecombe
Maxcy Luther John	Scotland
Paul Jones Long	Northampton
William Lunsford Long	Halifax
Angus Wilton McLean	Robeson

* The legal term of office expires November 30th of the year indicated.
**Deceased.

JOHN HALL MANNING.....Lenoir
GEORGE MCNEILL ROSE**.....Cumberland
JAMES SPRUNT.....New Hanover
HORACE EDNEY STACY.....Robeson
GEORGE STEPHENS.....Buncombe
NEWMAN ALEXANDER TOWNSEND.....Harnett
LYCURGUS RAYNER VARSER.....Robeson
LINDSAY CARTER WARREN.....Beaufort

1927

BENJAMIN LEONIDAS BANKS.....Gates
JAMES CRAWFORD BIGGS.....Wake
WILLIS JAMES BROGDEN.....Durham
WILLIAM HYSLOP SUMNER BURGWYN.....Northampton
WILLIAM PRESTON BYNUM.....Guilford
BURTON CRAIGE.....Forsyth
REUBEN OSCAR EVERETT.....Durham
JOHN WASHINGTON GRAHAM.....Orange
JAMES LEE HYATT.....Yancey
BENJAMIN KITTRELL LASSITER.....Granville
STAHLE LINN.....Rowan
JACOB ELMER LONG.....Durham
WALTER MURPHY.....Rowan
HENRY ALLISON PAGE.....Moore
EDGAR WALTER PHARR.....Mecklenburg
ROBERT BURWELL REDWINE.....Union
ALEXANDER ABEL SHUFORD, JR.....Catawba
CHARLES LEE SMITH.....Wake
EUGENE JACKSON TUCKER.....Person
ZEB VANCE WALSER.....Davidson
LESLIE WEIL.....Wayne
CHARLES WHEDBEE.....Perquimans
JOHN NESTOR WILSON.....Guilford
FRANCIS DONNELL WINSTON.....Bertie
ALBERT EDGAR WOLTZ.....Gaston

1929

THOMAS HALL BATTLE.....Nash
JAMES MCENTIRE CARSON*.....Rutherford

* Deceased.
**Resigned.

FREDERICK JACKSON COXE.....Anson
WILLIE REID DALTON.....Rockingham
CLAUDIUS DOCKERY.....Montgomery
RUFUS ALEXANDER DOUGHTON.....Alleghany
WILLIAM NASH EVERETT.....Richmond
JAMES THOMAS EXUM.....Green
EPHRAIM LASH GAITHER.....Davie
THOMAS JACKSON GOLD.....Guilford
JAMES ALEXANDER GRAY.....Forsyth
JOHN SPRUNT HILL.....Durham
CHARLES ANDREW JONAS.....Lincoln
JOSIAH CRUDUP KITTRELL.....Vance
JOHN HENRY McMULLAN, JR.....Chowan
JULIAN SMITH MANN.....Hyde
HAYWOOD PARKER.....Buncombe
JOHN HENRY PEARSON, JR.....Burke
WILLIE MANGUM PERSON.....Franklin
AUGUSTUS HOBSON PRICE.....Rowan
JAMES DICK PROCTOR.....Robeson
ALFRED MOORE SCALES.....Guilford
DORMAN THOMPSON*.....Iredell
GRAHAM WOODWARD.....Wilson
CLEMENT GILLESPIE WRIGHT.....Guilford

1931

THOMAS CONTEE BOWIE.....Ashe
WILLIAM EDMOND BREESE.....Transylvania
BENNEHAN CAMERON.....Durham
JAMES LESTER DeLANEY.....Mecklenburg
JOSEPH CHRISTOPHER BLUCHER EHRINGHAUS.....Pasquotank
ADOLPHUS HILL ELLER.....Forsyth
JOHN WILLIAM FRIES.....Forsyth
GEORGE KENNETH GRANTHAM.....Harnett
CHARLES FELIX HARVEY.....Lenoir
JOHN ADDISON HENDRICKS.....Madison
WILLIAM LANIER HILL.....Duplin
GEORGE ALLAN HOLDERNESS.....Edgecombe
RICHARD HENRY LEWIS.....Wake
HENRY MAUGER LONDON.....Wake
ADDISON GOODLOE MANGUM.....Gaston

*Deceased.

JAMES SMITH MANNING.....Wake
EDWARD S. PARKER, JR.....Alamance
JOHN JOHNSON PARKER.....Mecklenburg
ROBERT LEE SMITH.....Stanly
GEORGE SPENCER STEELE.....Richmond
WALTER FRANK TAYLOR.....Wayne
THOMAS DAVIS WARREN.....Craven
BAXTER BURKE WILLIAMS.....Warren
JOHN KENYON WILSON.....Pasquotank
STANLEY WINBORNE.....Hertford

COMMITTEES OF THE TRUSTEES

Executive Committee

CAMERON MORRISON, *ex officio,* Chairman
HENRY M. LONDON, *ex officio,* Secretary

**1924:* A. T. ALLEN, CLAUDIUS DOCKERY, J. W. GRAHAM, LESLIE WEIL, WALTER MURPHY.

**1925:* R. H. LEWIS, C. L. SMITH, CHARLES WHEDBEE, J. S. MANNING, F. D. WINSTON.

**1926:* W. N. EVERETT, W. P. BYNUM, J. S. CARR, JOSEPHUS DANIELS, A. M. SCALES.

Visiting Committee

**1924:* A. W. GRAHAM, GEO. C. GREEN.

**1925:* W. E. BREESE, GEO. A. HOLDERNESS.

**1926:* L. T. HARTSELL, CHAS. A. JONAS.

* Term expires.

OFFICERS OF ADMINISTRATION

THE UNIVERSITY

Harry Woodburn Chase, Ph.D., LL.D., *President.*

Walter Dallam Toy, M.A., *Secretary of the Faculty.*

Thomas James Wilson, Jr., Ph.D., *Registrar.*

George Kenneth Grant Henry, Ph.D., *Assistant Registrar.*

Charles Thomas Woollen, *Business Manager.*

Julius Algernon Warren, *Treasurer and Bursar.*

Louis Round Wilson, Ph.D., *Librarian.*

Charles Melville Baker, A.M., B.L.S., *Assistant Librarian.*

Francis Foster Bradshaw, A.B., *Dean of Students.*

Mrs. Marvin Hendrix Stacy, *Adviser to Women.*

Robert Allison Fetzer, B.S., M.A., *Director of Athletics.*

THE COLLEGES AND SCHOOLS

James Finch Royster, Ph.D., *Dean of the College of Liberal Arts.*

James Munsie Bell, Ph.D., *Acting-Dean of the School of Applied Science.*

Nathan Wilson Walker, Ed.M., *Acting-Dean of the School of Education and Director of the Summer School.*

Dudley deWitt Carroll, M.A., *Dean of the School of Commerce.*

Edwin Greenlaw, Ph.D., *Dean of the Graduate School.*

Atwell Campbell McIntosh, A.M., *Acting-Dean of the School of Law.*

Isaac Hall Manning, M.D., *Dean of the School of Medicine.*

Edward Vernon Howell, A.B., Ph.G., *Dean of the School of Pharmacy.*

Gustave Maurice Braune, C.E., *Dean of the School of Engineering.*

Howard Washington Odum, Ph.D., *Director of the School of Public Welfare.*

THE EXTENSION DIVISION

CHESTER DEFOREST SNELL, B.H., B.S., *Director.*
EDGAR RALPH RANKIN, A.M., *Associate Director.*
GEORGE BASKERVILLE ZEHMER, M.A., *Associate Director.*

THE GYMNASIUM

ROBERT BAKER LAWSON, M.D., *Director.*

THE INFIRMARY

ERIC ALONZO ABERNETHY, S.B., M.D., *University Physician.*

YOUNG MEN'S CHRISTIAN ASSOCIATION

HARRY FULCHER COMER, B.S., *General Secretary.*

OFFICERS OF INSTRUCTION

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

A.B., 1904, A.M., 1908 (Dartmouth); Ph.D., 1910 (Clark); LL.D. (Lenoir, Wake Forest, Georgia).

FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., *Kenan Professor of Chemistry.*

A.M., Ph.D., 1881 (Goettingen); LL.D. (Pennsylvania, South Carolina, Alabama, Jefferson); D.Sc. (Lafayette).

WALTER DALLAM TOY, M.A., *Professor of the Germanic Languages and Literatures.*

M.A., 1882 (Virginia).

WILLIAM CAIN, A.M., LL.D., D.Sc., *Kenan Professor Emeritus of Mathematics.*

A.M., 1886 (N. C. Mil. Polyt. Inst.); LL.D (South Carolina); D.Sc. (North Carolina).

HENRY HORACE WILLIAMS, A.M., B.D., *Kenan Professor of Philosophy.*

A.B., A.M., 1883 (North Carolina); B.D., 1888 (Yale).

HENRY VAN PETERS WILSON, Ph.D., *Kenan Professor of Zoology.*

A.B., 1883, Ph.D., 1888 (Johns Hopkins).

COLLIER COBB, A.M., D.Sc., *Professor of Geology and Mineralogy*

A.B., 1889, A.M., 1894 (Harvard); D.Sc. (Wake Forest).

CHARLES STAPLES MANGUM, A.B., M.D., *Professor of Anatomy.*

A.B., 1891 (North Carolina); M.D., 1894 (Jefferson Medical College).

EDWARD VERNON HOWELL, A.B., Ph.G., *Professor of Pharmacy and Dean of the School of Pharmacy.*

A.B., 1892 (Wake Forest); Ph.G., 1894 (Philadelphia College of Pharmacy).

*MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy and Dean of the School of Education.*

Student (Davidson and North Carolina).

ISAAC HALL MANNING, M.D., *Professor of Physiology and Dean of the School of Medicine.*

Student, 1882-1886 (North Carolina); M.D., 1897 (Long Island College of Medicine).

* Absent on leave, 1923-1924.

GEORGE HOWE, Ph.D., *Professor of the Latin Language and Literature.*

A.B., 1897 (Princeton University); A.M., Ph.D., 1903 (Halle).

NATHAN WILSON WALKER, A.B., Ed.M., *Professor of Secondary Education, Director of the Summer School, and Acting Dean of the School of Education.*

A.B., 1903 (North Carolina); Ed.M., 1921 (Harvard).

WILLIAM DEBERNIERE MACNIDER, M.D., *Kenan Professor of Pharmacology.*

M.D., 1903 (North Carolina).

WILLIAM CHAMBERS COKER, Ph.D., *Kenan Professor of Botany.*

B.S., 1894 (South Carolina); Ph.D., 1901 (Johns Hopkins).

*ARCHIBALD HENDERSON, Ph.D., D.C.L., LL.D., *Professor of Mathematics.*

A.B., 1898, A.M., 1899, Ph.D., 1902 (North Carolina); Ph.D., 1915 (Chicago); D.C.L., (University of the South); LL.D., (Tulane).

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph.D., *Kenan Professor of History and Government.*

M.A., 1900 (University of the South); Ph.D., 1906 (Columbia).

*ANDREW HENRY PATTERSON, A.M., *Professor of Physics and Dean of the School of Applied Science.*

Ph.B., B.E., 1891 (North Carolina); A.B., 1892, A.M., 1893 (Harvard).

HENRY MCGILBERT WAGSTAFF, Ph.D., *Professor of History.*

Ph.B., 1899 (North Carolina); Ph.D., 1906 (Johns Hopkins).

PATRICK HENRY WINSTON, *Professor of Law.*

Graduate, 1905 (United States Military Academy); Student of Law, 1905 (North Carolina); Student of Law, 1910 (Michigan).

WILLIAM MORTON DEY, Ph.D., *Professor of the Romance Languages and Literatures.*

B.A., M.A., 1902 (Virginia); A.M., 1904, Ph.D, 1906 (Harvard).

**LUCIUS POLK MCGEHEE, A.B., *Professor of Law and Dean of the School of Law.*

A.B., 1887 (North Carolina).

---

* Absent on leave, 1923-1924, on the Kenan Foundation.

** Died October 11, 1923.

Atwell Campbell McIntosh, A.M., *Professor of Law and Acting Dean of the School of Law.*

A.B., 1881, A.M., 1887 (Davidson).

Alvin Sawyer Wheeler, Ph.D., *Professor of Organic Chemistry.*

A.B., 1890 (Beloit); A.M., 1897, Ph.D., 1900 (Harvard).

Louis Round Wilson, Ph.D., *Kenan Professor of Library Administration and Librarian.*

A.B., 1899; A.M., 1902, Ph.D., 1905 (North Carolina).

*Parker Hayward Daggett, S.B., *Professor of Electrical Engineering.*

S.B., 1910 (Harvard).

James Munsie Bell, Ph.D., *Smith Professor of Chemistry and Acting Dean of the School of Applied Science.*

B.A., 1902, M.A., 1905 (Toronto); Ph.D., 1905 (Cornell).

Edwin Greenlaw, Ph.D., *Kenan Professor of English and Dean of the Graduate School.*

A.B., 1897, A.M., 1898 (Northwestern); A.M., 1903, Ph.D., 1904 (Harvard).

James Bell Bullitt, A.M., M.D., *Professor of Pathology.*

A.B., 1894, A.M., 1895 (Washington and Lee); M.D., 1897 (Virginia).

Thomas James Wilson, Jr., Ph.D., *Registrar.*

A.B., 1894, A.M., 1896, Ph.D., 1898 (North Carolina).

**Eugene Cunningham Branson, A.M., Litt.D., *Kenan Professor of Rural Social Economics.*

A.M., 1894 (Trinity); A.M., 1899 (Peabody Normal); Litt.D., 1919 (Georgia).

Dudley deWitt Carroll, M.A., *Professor of Economics and Dean of the School of Commerce.*

A.B., 1907 (Guilford); A.B., 1908 (Haverford); M.A., 1915 (Columbia).

Frederick Henry Koch, A.M., *Professor of Dramatic Literature.*

A.B., 1900 (Ohio Wesleyan); A.M., 1909 (Harvard).

John Emery Lear, E.E., *Professor of Electrical Engineering.*

B.S. in EE., 1901 (Virginia Polytechnic); EE., 1909 (Texas Agricultural and Mechanical).

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* Absent on leave, 1923-1924, on the Kenan Foundation.

** Absent on leave, fall and winter quarters 1923-1924, on the Kenan Foundation.

NORMAN FOERSTER, A.M., *Professor of English.*
A.B., 1910 (Harvard); A.M., 1912 (Wisconsin).

JOHN GROVER BEARD, Ph.G., *Professor of Pharmacy.*
Ph.G., 1909 (North Carolina).

EDGAR WALLACE KNIGHT, Ph.D., *Professor of Rural Education.*
A.B., 1909, A.M., 1911 (Trinity); Ph.D., 1913 (Columbia).

PAUL JOHN WEAVER, B.A., A.A.G.O., *Professor of Music.*
B.A., 1911 (Wisconsin); A.A.G.O., 1918 (New York).

WILLIAM FREDERICK PROUTY, Ph.D., *Professor of Stratigraphic Geology.*
B.S., 1903, M.S., 1904 (Syracuse); Ph.D., 1906 (Johns Hopkins).

HOWARD WASHINGTON ODUM, Ph.D., *Kenan Professor of Sociology and Director of the School of Public Welfare.*
A.B., 1904 (Emory); A.M., 1906 (Mississippi); Ph.D., 1909 (Clark); Ph.D., 1910 (Columbia).

WILLIAM STANLEY BERNARD, A.M., *Professor of Greek.*
A.B., 1900, A.M., 1904 (North Carolina).

JOHN MANNING BOOKER, Ph.D., *Professor of English.*
A.B., 1901 (Johns Hopkins); Ph.D., 1912 (Heidelberg).

OLIVER TOWLES, Ph.D., *Professor of French.*
A.B., 1906 (Virginia); Ph.D., 1912 (Johns Hopkins).

THOMAS FELIX HICKERSON, A.M., S.B., *Professor of Civil Engineering.*
Ph.B., 1904, A.M., 1907 (North Carolina); S.B., 1909 (Massachusetts Institute of Technology).

WILLIAM WHATLEY PIERSON, JR., Ph.D., *Professor of History and Government.*
A.B., 1910, A.M., 1911 (Alabama); A.M., 1912, Ph.D., 1916 (Columbia).

JOHN FREDERICK DASHIELL, Ph.D., *Professor of Psychology.*
B.S., 1908, B.L., 1909 (Evansville); A.M., 1910, Ph.D., 1913 (Columbia).

JESSE FREDERICK STEINER, Ph.D., *Professor of Social Technology.*
A.B., 1901 (Heidelberg [Ohio]); A.M., 1913 (Harvard); Ph.D., 1915 (Chicago).

STURGIS ELLENO LEAVITT, Ph.D., *Professor of Spanish.*
A.B., 1908 (Bowdoin); A.M., 1913, Ph.D., 1917 (Harvard).

James Finch Royster, Ph.D., *Kenan Professor of English Philology and Dean of the College of Liberal Arts.*
A.B., 1900 (Wake Forest); Ph.D., 1907 (Chicago).

Robert Diggs Wimberly Connor, Ph.B., *Kenan Professor of History and Government.*
Ph.B., 1899 (North Carolina).

Gustave Maurice Braune, C.E., *Professor of Civil Engineering and Dean of the School of Engineering.*
B.S., 1888 (Spring Hill); C.E. (Dipl. Ing.), 1895 (Royal Polytechnical Institute, Dresden, Saxony).

Louis Graves, A.B., *Professor of Journalism.*
A.B., 1902 (North Carolina).

Thornton Shirley Graves, Ph.D., *Professor of English.*
A.B., 1906 (Texas Christian); Ph.B., 1907, Ph.D., 1912 (Chicago).

Kent James Brown, Ph.D., *Professor of German.*
A.B., 1901 (Dickinson); Ph.D., 1905 (Pennsylvania).

Claudius Temple Murchison, Ph.D., *Professor of Applied Economics.*
A.B., 1911 (Wake Forest); Ph.D., 1919 (Columbia).

Robert Ervin Coker, Ph.D., *Professor of Zoology.*
S.B., 1896, S.M., 1897 (North Carolina); Ph.D., 1906 (Johns Hopkins).

Marion Rex Trabue, Ph.D., *Professor of Educational Administration.*
A.B., 1911 (Northwestern); A.M., 1914, Ph.D., 1915 (Columbia).

George McFarland McKie, A.M., *Professor of Public Speaking.*
Graduate, 1898 (Emerson College of Oratory); A.B., A.M., 1907 (North Carolina).

Walter Jeffries Matherly, M.A., *Professor of Business Administration.*
B.A., 1915 (William Jewell); M.A., 1916 (Washington University).

Erle Ewart Peacock, A.B., M.B.A., *Professor of Accounting.*
A.B., 1914 (Georgia); M.B.A., 1916 (Harvard).

Harry Wolven Crane, Ph.D., *Professor of Psychology.*
A.B., 1909, M.A., 1910, Ph.D., 1913 (Michigan).

THOMAS LATIMER KIBLER, Ph.D., *Professor of Economics and Transportation.*

A.B., 1904 (Randolph-Macon); M.A., 1909, Ph.D., 1913 (George Washington).

ARTHUR MELVILLE JORDAN, Ph.D., *Professor of Educational Psychology.*

A.B., 1907 (Randolph-Macon); A.M., 1909 (Trinity); Ph.D., 1919 (Columbia).

ESEK RAY MOSHER, Ed.D., *Professor of Education.*

A.B., 1903 (Minnesota); A.M., 1907 (Western Reserve); Ed.M., 1921, Ed.D., 1924 (Harvard).

FRANCIS FOSTER BRADSHAW, A. B., *Dean of Students.*

A.B., 1916 (North Carolina).

ROBERT BAKER LAWSON, M.D., *Associate Professor of Applied Anatomy.*

M.D., 1902 (Maryland).

JAMES TALMADGE DOBBINS, Ph.D., *Associate Professor of Chemistry.*

A.B., 1911, A.M., 1912, Ph.D., 1914 (North Carolina).

THORNDIKE SAVILLE, A.B., C.E., *Associate Professor of Hydraulic and Sanitary Enginering.*

A.B., 1914 (Harvard); B.S., 1914, C.E., 1915 (Dartmouth); M.S., 1917 (Harvard); M.S., 1917 (Mass. Inst. Technology).

JOHN WAYNE LASLEY, JR., Ph.D., *Associate Professor of Pure Mathematics.*

A.B., 1910, A.M., 1911 (North Carolina); Ph.D., 1920 (Chicago).

ALLAN WILSON HOBBS, Ph.D., *Associate Professor of Applied Mathematics.*

A.B., 1907 (Guilford); A.B., 1908 (Haverford); Ph.D., 1917 (Johns Hopkins).

WESLEY CRITZ GEORGE, Ph.D., *Associate Professor of Histology and Embryology.*

A.B., 1911, A.M., 1912, Ph.D., 1918 (North Carolina).

OTTO STUHLMAN, JR., Ph.D., *Associate Professor of Physics.*

B.A., 1907 (Cincinnati); M.A., 1909 (Illinois); Ph.D., 1911 (Princeton).

GUSTAVE ADOLPHUS HARRER, Ph.D., *Associate Professor of Latin.*

A.B., 1910, Ph.D., 1913 (Princeton).

*Frank Porter Graham, M.A., *Associate Professor of History.*
A.B., 1909 (North Carolina); M.A., 1916 (Columbia).

Clarence Addison Hibbard, M.A., *Associate Professor of English.*
B.A., 1909, M.A., 1919 (Wisconsin).

Charles Melville Baker, A.M., B.L.S., *Associate Professor of Library Administration and Assistant Librarian.*
A.B., 1910, A.M., 1911 (Harvard); B.L.S., 1918 (New York State Library School).

Frank Carl Vilbrandt, Ph.D., *Associate Professor of Industrial Chemistry.*
A.B., 1915, M.A., 1916, Ph.D., 1919 (Ohio State).

Harold Diedrich Meyer, A.M., *Associate Professor of Sociology and Supervisor of Field Work.*
A.B., 1912, A.M., 1916 (Georgia).

Harold Frederick Janda, C.E., *Associate Professor of Highway Engineering.*
C.E., 1916 (Wisconsin).

Wallace Everett Caldwell, Ph.D., *Associate Professor of History.*
A.B., 1910 (Cornell); Ph.D., 1919 (Columbia).

Floyd Henry Allport, Ph.D., *Associate Professor of Psychology.*
A.B., 1913, Ph.D., 1919 (Harvard).

Henry Dexter Learned, Ph.D., *Associate Professor of Romance Languages.*
A.B., 1912, Ph.D., 1917 (Pennsylvania).

Erich Walter Zimmerman, Ph.D., *Associate Professor of Marketing and Transportaion.*
Student, 1903-1907 (Düsseldorf); Ph.D., 1911 (Bonn).

Elmer George Hoefer, M.E., *Associate Professor of Mechanical Engineering.*
B.S. in M.E., 1905, M.E., 1915 (Wisconsin).

Edmund Brown, Jr., Ph.D., *Associate Professor of Marketing.*
B.A., 1912 (Amherst); A.M., 1915, Ph.D., 1922 (Columbia).

* Absent on leave, 1923-1925.

SAMUEL HUNTINGTON HOBBS, JR., A.M., *Associate Professor of Rural Economics and Sociology.*
A.B., 1916, A.M., 1917 (North Carolina).

WILLIAM FLINT THRALL, Ph.D., *Associate Professor of English.*
A.B., 1901, A.M., 1902 (McKendree); A.M., 1915, Ph.D., 1920 (Chicago).

HOWARD RUSSELL HUSE, Ph.B., *Associate Professor of Romance Languages.*
Ph.B., 1913 (Chicago).

ROBERT HASLEY WETTACH, A.M., S.J.D., *Associate Professor of Law.*
A.B., 1913, A.M., 1914, LL.B., 1917 (Pittsburgh); S.J.D., 1921 (Harvard).

WILLARD EARL ATKINS, J.D., *Associate Professor of Business Law.*
Ph.B., 1914, M.A., 1916, J.D., 1918 (Chicago).

CHESTER PENN HIGBY, Ph.D., *Associate Professor of History.*
A.B., 1908, A.M., 1909 (Bucknell); Ph.D., 1919 (Columbia).

PAUL HARRISON DIKE, Ph.D., *Acting Associate Professor of Physics.*
B.S., 1901, M.S., 1903 (Northwestern); Ph.D., 1911 (Wisconsin).

ALBRECHT NAETER, M.S., *Associate Professor of Electrical Engineering.*
B.S. in E.E., 1917 (Texas); M.S., 1923 (Cornell).

DANIEL ALLAN MACPHERSON, M.S., *Associate Professor of Bacteriology.*
Ph.B., 1919, M.S., 1920 (Brown).

HERMAN HENRY STABB, M.A., *Assistant Professor of Romance Languages.*
B.A., M. A., 1912 (University of the South).

ARTHUR SIMEON WINSOR, A.M., *Assistant Professor of Mathematics.*
A.B., 1914, A.M., 1915 (Mount Allison).

ERNEST LLOYD MACKIE, A.M., *Assistant Professor of Mathematics.*
A.B., 1917 (North Carolina); A.M., 1920 (Harvard).

ROY BOWMAN MCKNIGHT, A.B., M.D., *Assistant Professor of Pharmacology.*
A.B., 1914 (North Carolina); M.D., 1920 (Pennsylvania).

Albert Shapiro, Ph.D., *Assistant Professor of Spanish.*
A.B., 1914, A.M., 1914, Ph.D., 1916 (Harvard).

Corydon Perry Spruill, Jr., A.B., B.Litt. (Oxon.), *Assistant Professor of Economics.*
A.B., 1920 (North Carolina); B.Litt., 1922 (Oxford).

Edward Tankard Browne, A.M., *Assistant Professor of Mathematics.*
A.B., 1915, A.M., 1917 (Virginia).

Edward Vernon Kyser, Ph.G., *Assistant Professor of Pharmacy.*
Ph.G., 1915 (North Carolina).

Charles H. Fernald, M.B.A., *Assistant Professor of Salesmanship and Advertising.*
B.S., 1916 (Amherst); M.B.A., 1921 (Harvard).

Henry Roland Totten, Ph.D., *Assistant Professor of Botany.*
A.B., 1913, A.M., 1914, Ph.D., 1923 (North Carolina).

Ernst Christian Paul Metzenthin, Ph.D., *Assistant Professor of German.*
A.M., 1913 (Pennsylvania State); Ph.D., 1915 (Pennsylvania).

Floyd Harris Edminster, Ph.D., *Assistant Professor of Chemistry.*
B.S., 1912 (Syracuse); M.S., 1913 (Louisiana State); Ph.D., 1918 (Syracuse).

Harold Robert Smart, Ph.D., *Assistant Professor of Philosophy.*
B.S., 1915 (Wesleyan); M.A., 1921, Ph.D., 1923 (Cornell).

Joel Howard Swartz, Ph.D., *Assistant Professor of Geology.*
A.B., 1915, Ph.D., 1923 (Johns Hopkins).

Wiley Britton Sanders, A.M., *Assistant Professor of Sociology.*
A.B., 1919 (Emory College); A.M., 1920 (Emory University); A.M., 1921 (North Carolina).

Albert Ray Newsome, M.A., *Assistant Professor of History.*
A.B., 1915 (North Carolina); M.A., 1922 (Michigan).

Shipp Gillespie Sanders, A.M., *Assistant Professor of Latin.*
A.B., 1909 (Southwestern); A.M., 1915 (Princeton).

Albert Coates, LL.B., *Assistant Professor of Law.*
A.B., 1918 (North Carolina); LL.B., 1923 (Harvard).

PAUL ELLIOTT GREEN, A.B., *Assistant Professor of Philosophy.*
A.B., 1921 (North Carolina).

FRED BAYS MCCALL, A.B., *Assistant Professor of Law.*
A.B., 1915 (North Carolina).

HAYWOOD MAURICE TAYLOR, S.M., *Instructor in Chemistry.*
S.B. in Chemistry, 1920, S.M., 1921 (North Carolina).

WILLIAM DOUGALD MACMILLAN, 3d., A.M., *Instructor in English.*
A.B., 1918, A.M., 1920 (North Carolina).

ALMONTE C. HOWELL, M.A., *Instructor in English.*
A.B., 1917 (Denison); M.A., 1920 (Columbia).

FRANK JOHN HARONIAN, M.A., *Instructor in French.*
A.B., 1908 (College des Mechitharistes [Constantinople]); M.A., 1921 (Columbia).

MARTIN KAHAO BROOKS, A.M., *Instructor in Romance Languages.*
A.B., 1911, A.M., 1912 (Kansas).

HARRY SYLVANUS VANLANDINGHAM, M.A., *Instructor in French.*
B.A., 1912, M.A., 1916 (Richmond).

THOMAS JAMES WILSON III., A.B., *Instructor in French.*
A.B., 1921 (North Carolina).

JOHN FENTON DAUGHERTY, A.B., *Instructor in Physics.*
A.B., 1921 (Dickinson).

FREDERICK JAMES HURLEY, A.B., *Instructor in Spanish.*
A.B., 1916 (Harvard).

THOMAS MORTIMER MCKNIGHT, A.B., *Instructor in Spanish.*
A.B., 1921 (North Carolina).

WILLIAM BURRUSS HARRELL, S.B., *Instructor in Economics.*
S.B. in Commerce, 1921 (North Carolina).

GERALD RALEIGH MCCARTHY, A.B., *Instructor in Geology.*
A.B., 1921 (Cornell).

GEORGE WALLACE SMITH, S.B., *Instructor in Engineering.*
S.B. in Electrical Engineering, 1916 (North Carolina).

HORACE DOWNS CROCKFORD, S.M., *Instructor in Chemistry.*
B.S., 1920 (N. C. State College of Agriculture and Engineering); S.M., 1923 (North Carolina).

Keble Barnum Perine, B.S., *Instructor in Bio-Chemistry.*
B.S., 1922 (Massachusetts Institute of Technology).

Raymond William Adams, A.M., *Instructor in English.*
A.B., 1920 (Beloit); A.M., 1921 (North Carolina).

John Nathaniel Couch, A.M., *Instructor in Botany.*
A.B., 1919, A.M., 1922 (North Carolina).

Clayton Carr Edwards, A.B., *Instructor in Mathematics.*
A.B., 1922 (North Carolina).

Robert Russell Potter, A.M., *Instructor in English.*
A.B., 1921 (Denver); A.M., 1922 (Colorado).

Theodore Frank Fitch, A.B., *Instructor in Music.*
A.B., 1922 (Rochester).

Thomas Alexander Little, A.B., *Instructor in English.*
A.B., 1917 (Washington Missionary).

Frank Thornber Thompson, A.M., *Instructor in English.*
A.B., 1922, A.M., 1923 (North Carolina).

Henry Thomas Shanks, A.M., *Instructor in History.*
A.B., 1918, A.M., 1920 (Wake Forest); A.M., 1923 (Chicago).

Rosser Howard Taylor, A.M., *Instructor in History.*
A.B., 1916 (Wake Forest); A.M., 1920 (North Carolina).

Delbert Harold Gilpatrick, A.M., *Instructor in History.*
A.B., 1914 (Stetson) A.M., 1920 (Columbia).

John Milton Williams, B.A. (Oxon.), A.M., *Instructor in English.*
B.A., 1921 (University of Oxford); M.A., 1923 (Harvard).

William Olsen, A.B., *Instructor in English.*
A.B., 1923 (Cornell).

Lonnie Ray Sides, A.B., *Instructor in Music.*
A.B., 1920 (Elon).

Charles Frederick Hard, A.B., *Instructor in Music.*
A.B., 1922 (University of the South).

Ralph McCoy Trimble, C.E., *Instructor in Civil Engineering.*
C.E., 1921 (Virginia).

CHARLES BOWIE MILLICAN, A.M., *Instructor in English.*
A.B., 1922 (Emory); A.M., 1923 (North Carolina).

JOHN CORIDEN LYONS, M.A., *Instructor in French.*
B.S., 1920, M.A., 1921 (William and Mary).

ALBERT WILDER THOMPSON, M.A., *Instructor in French.*
A.B., 1922 (Illinois); A.M., 1923 (Harvard).

WYATT ANDREW PICKENS, A.B., *Instructor in Spanish.*
A.B., 1922 (North Carolina).

THOMAS EWELL WRIGHT, A.B., *Instructor in Romance Languages.*
A.B., 1922 (North Carolina).

WILLIAM WHITE ROGERS, A.B., *Instructor in Psychology.*
A.B., 1912 (North Carolina).

GEORGE VERNON DENNY, S.B., *Instructor in English.*
S.B. in Commerce, 1922 (North Carolina).

OSCAR EUGENE MARTIN, *Instructor in Engineering.*

FREDERICK PHILIPS BROOKS, S.M., *Instructor in Chemistry.*
S.B. in Chemistry, 1921, S.M., 1922 (North Carolina).

PAUL MILTON GRAY, S.B., *Instructor in Electrical Engineering.*
S.B. in E.E., 1922 (North Carolina).

ROBERT ALLISON HOPE, A.B., *Instructor in Latin.*
A.B., 1920 (Presbyterian College of South Carolina).

SHERMAN BRYAN SMITHEY, A.B., *Instructor in Mathematics.*
A.B., 1917 (North Carolina).

LEON MARR SAHAG, S.B., *Instructor in Mathematics.*
S.B. in E.E., 1915 (North Carolina).

WILTON CATHEY, A.B., *Instructor in Physics.*
A.B., 1923 (North Carolina).

FRANK MCKIM SWARTZ, A.B., *Instructor in Geology.*
A.B., 1921 (Johns Hopkins).

IRVING JOSEPH STEPHENSON, A.B., *Instructor in Mathematics.*
A.B., 1923 (North Carolina).

WILLIAM VANN PARKER, A.B., *Instructor in Mathematics.*
A.B., 1923 (North Carolina).

TEACHING FELLOWS, 1923-1924

James Vernon Harvey, B.A., *Botany.*
William Everett Giles, A.B., A.M., *Chemistry.*
Charles Robert Harris, S.B., S.M., *Chemistry.*
Earle DeWitt Jennings, S.B., *Chemistry.*
Julian Henry Wulbern, B.S., *Civil Engineering.*
Robert Byerly Eutsler, S.B., *Economics.*
Maxwell Galbraith Pangle, A.B., *Economics.*
David Hezekiah Briggs, A.B., *Education.*
Howard Meacham Reaves, A.B., *English.*
William Stanford Webb, B.A., *English.*
Samuel Hood Willis, A.B., *English.*
Herman Jennings Bryson, A.B., *Geology.*
Benjamin Owens DuPree, A.B., *History and Government.*
Clarence Clifford Norton, B.S., M.A., *History and Government.*
Gaston Swindell Bruton, A.B., *Mathematics.*
Dare Abernathy Wells, S.B., *Physics.*
Walter Livingston Hinman, A.B., *Psychology.*
Hermon Wilkes Martin, A.B., *Psychology.*
John Leroy Smith, A.B., *Romance Languages.*
Sterling Aubrey Stoudemire, A.B., *Romance Languages.*
George Harold Lawrence, A.B., *Sociology.*
James Theophilus Penny, A.B., *Zoology.*

STUDENT ASSISTANTS, 1923-1924

Alma Holland, *Assistant in Botany.*
Etta Pierson, *Assistant in Botany.*
Ralph Walton Bost, A.B., *Assistant in Chemistry.*
Charles Wood Flintom, *Assistant in Chemistry.*
William Marion Mebane, *Assistant in Chemistry.*
Joseph Harley Mourane, S.B., *Assistant in Chemistry.*
George Moseley Murphy, *Assistant in Chemistry.*
Wycliffe Commandeur Quinby, *Assistant in Chemistry.*
Vance Benton Rollins, *Assistant in Chemistry.*
A. Theodore Johnson, A.M., *Assistant in English.*
Henry Bascom Mock, A.M., *Assistant in English.*
Wilbur White Stout, A.M., *Assistant in English.*
James Elvin Bailey Caudle, *Assistant in Geology.*
Thomas Hilton Evans, *Assistant in Geology.*
Claude Stuart Johnston, *Assistant in Geology.*

CLARENCE E. MILLER, *Assistant in Geology.*
ROBERT SESSOMS WEAVER, *Assistant in Geology.*
ELBERT DWIGHT APPLE, *Assistant in the Library.*
WILLIAM SCOTT BERRYHILL, *Assistant in the Library.*
ALLEN DEXTER BUTLER, *Assistant in the Library.*
WILLIAM TERRY COUCH, *Assistant in the Library.*
CLARENCE WINDLEY HALL, *Assistant in the Library.*
EARL HORACE HARTSELL, *Assistant in the Library.*
CHARLES RAPER JONAS, *Assistant in the Library.*
WILLIAM RUSSELL MCDONALD, *Assistant in Pharmacy.*
HENRY CLAY ROSS, *Assistant in Pharmacy.*
WAITS ARTEMUS WARD, *Assistant in Pharmacy.*
CHARLES RAYMOND WHITEHEAD, *Assistant in Pharmacy.*
MILTON LAU BRAUN, B.A., *Assistant in Physics.*
GEORGE THOMAS WOOD, JR., *Assistant in Physics.*
ARTHUR BENJAMIN CULBERSON, A.B., *Assistant in Psychology.*
RUDOLPH SAMUEL MATTHEWS, *Assistant in Psychology.*
DANIEL CALVIN CORRIHER, *Assistant in Zoology.*
EVERETT SULTAN MCDANIEL, JR., *Assistant in Zoology.*
JASPER DANIEL WEST, *Assistant in Zoology.*

FACULTY COMMITTEES

The President is a member *ex officio* of all committees.

ADVISORY *(elected)*. Professors Carroll, Wilson, L. R., Royster, Greenlaw, Coker, W. C.

EXECUTIVE *(elected)*. Professors Wagstaff, Bell, McIntosh, Bernard, Connor.

ADVANCED STANDING. The Registrar, Professors Carroll, Howe.

ATHLETICS. Professors Hobbs, A. W., Connor, Howell, Lawson, Patterson, Graves, L., Hibbard.

ALUMNI CATALOGUE. Mr. Grant, The Registrar, Professors Hamilton, Wilson, L. R., Mr. Rankin, and Alumni representatives.

ALUMNI ORGANIZATION. Mr. Grant, Mr. Rankin, Professors Bernard, Patterson, Lasley, McKie, Mr. Bradshaw.

CHAPEL. Mr. Bradshaw, Professors Bernard, Mangum, Odum, Meyer, Coates, Weaver, Steiner, Mr. Comer.

DEBATES. Professors Williams, Bernard, McKie, Atkins, Coates.

DEGREES WITH DISTINCTION. Professors Greenlaw, Daggett, Hamilton, Henderson, Howe, Toy, Wilson, H. V., Carroll.

DRAMATICS. Professors Koch, Howe, Daggett, Greenlaw, Weaver, Wheeler, McKie.

English Composition. Professors Thrall, Bell, Carroll, Foerster, Leavitt, Pierson.

Educational Policy. The President, Professors Carroll, Coker, W. C., Daggett, Greenlaw, Howe, Knight, Pierson, Royster, Walker.

Entrance Requirements. Professors Walker, Knight, Daggett, Caldwell, Royster, The Registrar.

Faculty Living Conditions. Professors Wagstaff, Carroll, Bell, Branson, Daggett, Henry, Wheeler, Wilson, L. R., and Mr. Woollen.

Grounds and Buildings. Professors Coker, W. C., MacNider, Wheeler, Booker, Odum, Braune, Mr. Woollen.

Health and Sanitation. Dr. Abernethy, Professors Braune, Bullitt, Saville, Mr. Woollen.

Library Book Committee. Professors Wilson, L. R., Coker, W. C., Bernard, Foerster, Pierson, Dey, Murchison.

Library Budget. The Librarian, the Deans of the College, the Schools of Applied Science, Commerce, Engineering, Education, and the Graduate School, the President.

McNair Lectures. Professors Coker, W. C., Williams, MacNider, Odum.

Press Association. Professors Graves, L., Wilson, L. R., Hibbard.

Publications. Professors Graves, L., Wilson, L. R., Hamilton, Coker, W. C., Greenlaw, Walker, Odum, Mr. Snell.

Public Lectures. Professors Graves, L., Howe, MacNider, Coker, W. C., Carroll.

Public Occasions and Celebrations. Professors Hamilton, Wheeler, Howe, Connor, Mangum, Knight, Mr. Woollen.

Student Employment. Mr. Bradshaw, Professors Bell, Toy, Wheeler, Hickerson, Odum, Lear, Hobbs, A. W., Mr. Comer.

Student Life and Activities. Mr. Bradshaw, Professors Booker, Bernard, Weaver, Hibbard, Matherly, McKnight, R. B., Meyer, Mrs. Stacy.

University Relations. Professors Wilson, L. R., Knight, Branson.

University Sermons. Professors Toy, Wheeler, Cobb, Knight, Odum.

PART TWO—GENERAL INFORMATION

THE UNIVERSITY
GROUNDS AND BUILDINGS
LIBRARY
THE UNIVERSITY PRESS
ADMISSION
EXPENSES
PECUNIARY AID
MEDALS AND PRIZES
REGULATIONS
STUDENT GOVERNMENT
PUBLIC LECTURES
UNIVERSITY ORGANIZATIONS
THE ASSOCIATIONS OF THE ALUMNI

THE UNIVERSITY

FOUNDATION AND GOVERNMENT

The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1789, the corner-stone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of Incorporation are as follows:

"AN ACT TO ESTABLISH A UNIVERSITY IN THIS STATE"

"Whereas in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same, That, Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Fredcrick Harget, Robert Snead, Archibald Maclaine,* Honourable *Samuel Ashe, Robert Dixon, Benjamin Smith,* Honourable *Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove,* Reverend *Samuel McCorkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham,* Honourable *John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood,* senior, *John Macon, William Richardson Davie, Joseph Dixon, William Lenoir, Joseph M'Dowell, James Holland* and *William Porter, Esquires,* shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of *The Trustees of the University of North Carolina** and by that name shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Majority of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University."**

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarian or political control. The Governor of the State is *ex officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

"Sec. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchise, and endowments thereof, in any wise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

"Sec. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition; also all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estate of deceased persons, shall be appropriated to the use of the University."

* The corporate name has been changed to The University of North Carolina.

** Laws of the State of North Carolina, published by James Iredell, Edenton, 1791.

SITUATION AND GENERAL ADVANTAGES

The University is situated at Chapel Hill, twelve miles from Durham and thirty-eight miles from Raleigh. It may be reached by rail from University Junction, or by one of the automobile lines which maintain regular and frequent schedules from Durham. The site of the University is on a promontory of granite, belonging to the Laurentian system, about three hundred feet above the sandstone formation to the east that was once the bed of a great body of water. It is near the center of the State, midway between the mountains and the sea, with sufficient elevation to insure healthful and pleasant working conditions. The site has always been famed for its beauty. On this promontory the great roads from Petersburg to Pittsboro and from New Bern to Greensboro crossed. At the cross was a chapel of the Church of England, giving to the eminence its name, New Hope Chapel. The name "Chapel Hill" occurs in the report of the Trustees, November, 1792, on the choice of a site, and a contemporary account describes the site as follows:

"The seat of the University is on the summit of a very high ridge. . . . The ridge appears to commence about half a mile directly east of the building, where it rises abruptly several hundred feet. This peak is called Point Prospect. The flat country spreads out below like the ocean, giving an immense hemisphere in which the eye seems lost in the extent of space."

This account is equally valid to-day. The region abounds in hills, covered with magnificent trees, filled with springs and brooks, and with a profusion of mountain flowers. The campus, of about sixty-eight acres, is one of the most beautiful in America. The University owns, contiguous to the campus, five hundred acres of forest lands, partly laid off in walks and drives. The present buildings of the University, about thirty-nine in number, range in age from the Old East dating to 1795 to the new buildings erected for the accommodation of the Academic and Law Schools. A model central power plant provides heat, water, and electric lights for all the buildings. The infirmary is a modern building completely equipped and under the direction of the University physician. Records prove that health conditions at the University are excellent.

NEW BUILDING PROGRAM

The generous appropriations for permanent improvements made by the General Assembly of 1921 and that of 1923 have made it possible to begin work on the development of the South Campus.

There are now completed four new dormitories capable of housing four hundred and eighty students, a large building for the Departments of History and Social Sciences, a similar building for the Language Departments, and a handsome building for the School of Law. A commodious building, one hundred ten by three hundred ten feet for indoor athletics, has recently been completed. Another group of dormitories, to the east of the Raleigh road, is under construction, and plans for the new building for the Department of Chemistry are complete. Work on this building starts immediately.

ORGANIZATION AND DEGREES

The University is organized into a College of Liberal Arts and seven Schools, which have jurisdiction over degrees as follows: The College of Liberal Arts, Bachelor of Arts, and jointly with the School of Law, Bachelor of Arts and Laws; the School of Applied Science, Bachelor of Science in Chemistry, in Geology, and jointly with the School of Medicine, in Medicine; the School of Education, Bachelor of Arts in Education; the School of Commerce, Bachelor of Science in Commerce; the School of Engineering, Bachelor of Science in Electrical Engineering and in Civil Engineering; the Graduate School, Master of Arts, Master of Science, and Doctor of Philosophy; the School of Law, Bachelor of Laws, Bachelor of Arts (jointly with the College of Liberal Arts); the School of Medicine, Bachelor of Science in Medicine (jointly with the School of Applied Science); the School of Pharmacy, Graduate in Pharmacy, Doctor of Pharmacy, and Pharmaceutical Chemist.

The School of Public Welfare offers courses of professional training for social work and community leadership.

In the Summer School are offered certain courses for which regular University credit is allowed, as well as special courses designed primarily for the teachers of the state.

There is also a Division of Extension through which the services of the University Faculty and certain material equipment of the University are made available to the people of the state generally.

THE COLLEGE YEAR

The college year is divided into Fall, Winter, and Spring Quarters of approximately twelve weeks each, and a Summer Quarter divided into two terms of about six weeks each. There is a Thanksgiving recess of three days, a Christmas recess of approximately two weeks, and an Easter recess of seven days.

GENERAL CULTURE

Chapel Exercises are conducted in Memorial Hall, with the reading of the scriptures and singing, every week-day morning except Saturday, at 10:30 o'clock. Attendance is required of Freshmen five days a week and of Sophomores and Juniors on Mondays and Fridays. At this hour timely talks are given by different members of the Faculty and by others. Bible classes for young men are taught in each of the five churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered annually by the University preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are largely attended by the students.

DISCIPLINE

The University endeavors to make young men manly and self-reliant, and to develop character by educating the conscience. The Faculty may, at their discretion, admonish, suspend, or dismiss students for neglect of duty, or for misconduct.

PHYSICAL TRAINING

Hearty encouragement is given to athletic sports and to all kinds of physical culture. The Emerson Athletic Field, the gift of Mr. Isaac Emerson, of Baltimore, furnishes ample facilities for football and baseball, and the track is admirably adapted for running and general track athletics. A new field for class athletics has been completed recently and put into use. This field lies directly to the east of Emerson Field and serves the Freshmen teams and other class teams. More than fifty tennis courts are located on the campus. Systematic exercise under skilled instructors is offered to all students in the University.

Exercise is required three hours a week of all Freshmen, unless excused. In the fall, a thorough physical examination of each Freshman is made, and the heart, the lungs, the eyes, and the ears, are tested, in order that students defective in physical development may be given special work under the personal supervision of the Director. Round shoulders, flat chests, curvature of the spinal column, hernia, and mild cases of congenital paralysis are thus often greatly benefited and sometimes completely corrected.

MEDICAL ATTENTION

In order to secure responsible and efficient medical advice and to provide proper attention for the student during sickness, the University employs a practising physician and maintains a well appointed infirmary. The Infirmary is equipped with all necessary conveniences and comforts, is under the immediate supervision of the University Physician, and is provided with two experienced nurses. At the discretion of the University Physician a student may be admitted to its wards, and for such services as may be rendered by the staff no charges are made, but should any additional service (consultation, special nurses, operations requiring the attendance of a trained surgeon) recommended by the attending physician and approved by the parent or guardian be necessary, the student will be required to pay for such services.

GROUNDS AND BUILDINGS

The University campus contains sixty-eight acres of land, affording ample grounds for building and for all sorts of athletic sports. The University owns, contiguous to the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has thirty-nine buildings.

The Old East Building (1793) contains thirty-nine living rooms.

Person Hall (1795) contains the offices, lecture rooms, and laboratories of the School of Pharmacy.

The South Building (1798) contains thirty-one living rooms.

Gerrard Hall (1822) is used for lectures and student assemblies.

The Old West Building (1822) contains thirty-nine living rooms.

Smith Hall (1849) contains the theatre and workshop of the Carolina Playmakers.

The New East Building (1857) contains the Philanthropic Literary Society's Hall, the Geological Laboratories and Museum, the the offices of the North Carolina Geological Survey, and six living rooms.

The New West Building (1857) contains the Dialectric Literary Society's Hall, three lecture rooms and eight living rooms.

Memorial Hall (1883) commemorates the illustrious dead of the University. It is used for chapel exercises, for Commencement and public exercises.

Alumni Hall (1898) contains the offices of adminstration, the offices of the Extension Department, and one lecture room.

The Carr Dormitory (1899) contains thirty-two living rooms.

The Smith Dormitory (1901) contains forty living rooms.

The William Preston Bynum, Jr., Gymnasium (1904) is furnished with modern apparatus, swimming pool, baths, and running track; and contains a trophy room and the office of the Director.

The Young Men's Christian Association Building (1904) is a valuable adjunct to the work of the Association.

The Chemistry Building (1905) contains the laboratories, lecture rooms, library, and offices of the Department of Chemistry.

The Library (1907) contains the offices, stack rooms, and reading rooms of the main library.

The Infirmary (1907) is completely equipped for service to the students of the University.

Davie Hall (1908) contains the laboratories, lecture rooms, library, and offices of the departments of Botany and Zoology.

Caldwell Hall (1911) contains the laboratories, lecture rooms, library, and offices of the School of Medicine.

The Peabody Building (1912) contains the lecture rooms, libraries, laboratories, and offices of the School of Education and the Department of Psychology.

The Battle-Vance-Pettigrew Dormitories (1912) contain twenty-four living rooms each.

Swain Hall (1913) contains a dining hall with a seating capacity of six hundred, kitchens, bakery, and a cold-storage plant.

Phillips Hall (1918) contains the laboratories, lecture rooms, library and offices of the School of Engineering and the Departments of Mathematics and Physics.

The Steele Dormitory (1920) contains thirty-six living rooms.

The Mangum Dormitory (1921) contains sixty living rooms.

The Grimes Dormitory (1921) contains sixty living rooms.

The Manly Dormitory (1921) contains sixty living rooms.

The Ruffin Dormitory (1921) contains sixty living rooms.

Saunders Hall (1922) contains the laboratories, lecture rooms, and offices of the School of Commerce, the Department of History and Government, the School of Public Welfare, and the Department of Rural Social Science.

Murphey Hall (1922) contains the lecture rooms, seminar rooms, and offices of the Departments of English, German, Greek, Latin, and Romance Languages.

Manning Hall (1923) contains the lecture rooms, library, reading rooms, and offices of the School of Law.

Besides the buildings named above the University owns a number of service and residence buildings.

LABORATORIES AND MUSEUMS

The Geological Laboratories and Museum

The Geological Laboratory occupies the first floor of the New East Building. In addition to a lecture room with a seating capacity of about fifty, there is on this floor a laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure.

The petrography laboratory, on the fourth floor, is furnished with three petrographical microscopes, with four microscopes for soil study, and with apparatus for the slicing and polishing of rocks. Microscopic slides have been made of most of the specimens from North Carolina; the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coal, and various products illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka and Santa Fe Railroad is included in the collection. Valuable additions have been made to the collection of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. The collection illustrating economic geology has been largely increased by the addition of many specimens from the mining regions of Northern Ontario. In 1921 a complete set of the soils of Japan arranged with relation to geological horizons was added to the collections as well as many photographs and specimens collected in Asia and in tropical South America during Professor Cobb's absence on leave, 1920-'21. Stereographs and lantern slides illustrating geological phenomena in all parts of the world and lantern slides showing mining methods in all the great mining regions are in constant use, and important additions to this collection have been made during the year.

The Department Library, which occupies a room on the second floor, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

The Chemical Laboratories

Chemistry Hall is located east of Alumni Hall. The main floor contains a large lecture hall, a small lecture room, the laboratory for Organic Chemistry, two laboratories for Quantitative Analysis, several private laboratories and offices for the instructors. On the

second floor are two large laboratories for Elementary Chemistry, a large laboratory for Qualitative and Quantitative Analysis, several reserch laboratories and the Library of the Department. The basement contains the storerooms, fireproof room, constant temperature room, assay room, laboratories for Physical Chemistry, Electrochemistry, Industrial Chemistry and a small lecture room.

The laboratories are well equipped with apparatus for the regular courses and for research work of students or instructors, and the library contains a most excellent collection of books and journals which are of the utmost value in research work.

The Biological Laboratories

The Biological Building, Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper-and-salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third floor. The building faces south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lighted with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens. The west wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the east wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with a window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers, and is lighted on three sides with twenty windows. The main building on this floor includes private workrooms for the professors of zoology and botany; two storerooms, and a library. On the third floor of the main body is a professor's workroom and a photographic studio with windows on the north side extending to the floor and skylights. In the basement are a fireproof incubator room, a room for micro-photography

with adjoining dark room, janitor's shop, and rooms for the storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants for experimental work in zoology and botany.

The Medical Laboratories

The medical building, Caldwell Hall, was built with funds appropriated by the State. It was completed and opened for service in 1912. It is located on the south side of Cameron Avenue opposite Davie Hall.

The main building is 117 x 64 feet and adjoining it on the south side is a wing 63 x 36 feet, each including a basement and two stories. The first floor of the main building is bisected by a hall fourteen feet wide from north to south and a corridor 8 feet wide from east to west. The floor space is therefor subdivided into four equal parts. Each part is subdivided into one large laboratory 34 x 27 feet and two smaller laboratories, 12 x 14 feet. The second floor is practically a duplicate of the first floor. Each of the large laboratories is equipped for forty students and those on the north side are used for all microscopic work and those on the south side for experimental physiology, experimental pharmacology, and physiological chemistry. The smaller laboratories are used as private laboratories for the instructors.

On the first floor of the wing are the lecture room which has a seating capacity of about seventy-five, and the departmental library; on the second floor are the dissecting hall and private rooms of the instructors in anatomy.

In the basement provision is made for the care of animals and the storage of supplies. The rooms are well lighted, heated, and ventilated and provided with conveniences for proper sanitation.

The laboratories are unusually well lighted and equipped with the essentials for efficient work by students and instructors.

The departmental library contains approximately 1200 bound volumes of the best journals covering the subjects of the first two years of the medical course, most of them in complete sets, and a large number of books on clinical subjects presented by friends of the school, among them the private libraries of some of the most eminent physicians in the State, Dr. W. J. Wood, of Wilmington; Dr. P. E. Hines, of Raleigh; Dr. H. S. Bahnson, of Winston-Salem; Dr. J. E. Ray, of Raleigh.

The Pharmaceutical Laboratories

Person Hall is occupied by the School of Pharmacy. It contains ten rooms, each equipped with water, gas, and electricity. It is well supplied with light and ventilation.

The front part of the building contains a lecture room, a library, and a research laboratory. The lecture room has a seating capacity of seventy-five students. In this room are exhibited many rare and expensive chemicals, antitoxins and serums, standardized galenicals, and preparations made by various students. These exhibits serve to illustrate lectures. The library was inaugurated by the Class of 1897. In it are filed a large number of medical and pharmaceutical journals, and it contains a well-selected group of text, historical, and reference books.

The body of the building is made up of three laboratories. These laboratories are for the first, second, and third year pharmacy students. Each student is supplied with an individual desk with lock, in which are stored all the equipment and apparatus necessary for the work. These desks are supplied with both water and gas. Suitable balances are distributed at convenient points throughout the laboratories.

The back wing of the building contains a prescription and gas room, an office, and a large lecture room for the courses in materia medica.

The Physical Laboratories

The Physical Laboratories occupy the west end of the main floor of Phillips Hall. There is a large laboratory for general physics, a laboratory for advanced work, several research laboratories, a photographic dark room and two large apparatus rooms. One of these adjoins the lecture room, which has a seating capacity of three hundred. The general laboratory is large enough to accommodate more than forty students at one time and is equipped with a view of accomplishing the maximum amount of laboratory work in the minimum time. All laboratories and lecture rooms are supplied with gas, running water, and electric power. Compressed air can be obtained by means of a portable compression and vacuum pump.

The following electrical power resources are available: 3-phase alternating current at 110 volts, or 220 volts; a 12 volt set with capacity of 500 amperes; a 12 volt set with capacity of 14 amperes, and a 110 volt circuit.

A three-panel slate switchboard distributes direct and alternating current power by means of a plug and socket system to sub-panels located in all lecture rooms and laboratories. Seven wires run from the switchboard to each of the sub-panels, giving a very flexible system of power distribution.

The advanced laboratories are equipped with special apparatus making it possible to pursue advanced work in physics especially along the line of optics, conduction of electricity through gases, and the electron theory. The recent addition of a Langmuir Vacuum Pump makes possible investigations in the highest attainable vacuum.

The departmental library located on the third floor of Phillips Hall has on file the current numbers of all of the standard American, English, French, and German journals of physics.

The Psychological Laboratories

The Department of Psychology is using temporarily rooms at the west end of Peabody Building. They include a medium sized lecture room, two laboratory rooms, two small laboratory rooms, a dark room, three offices, all on the second floor; and an animal laboratory room in the basement.

The equipment includes: sufficient duplication of apparatus for the experimental work in the various undergraduate courses; a fairly complete stock of high standard apparatus for training in experimental methods; and sufficient apparatus and funds for the prosecution of research along most of the recognized psychological lines.

The departmental library includes all the technical journals published in English and a few in other languages. The supply of books is fairly complete.

The Civil Engineering Laboratories

The Civil Engineering Laboratories occupy the east end of the ground floor of Phillips Hall. The materials testing laboratory contains a one-hundred thousand pound Universal testing machine upon which the usual tests of various materials of construction can be performed. This laboratory is also equipped with a Standard tensile testing machine for testing cement briquettes together with such accessory apparatus as is necessary for the standard tests of cement and sand.

The highway engineering laboratory is equipped with apparatus for the standard tests of bituminous and non-bituminous road surfacing materials, consisting in part as follows: Engler viscosimeter, penetrometer, ring and ball melting point apparatus, open cup oil tester, New York Board of Health oil tester, Hubbard-Carmick specific gravity flasks, hydrometers, float testing apparatus, constant temperature and drying oven, ductility machine, Dulin rotarex, Deval 4-cylinder abrasion machine, diamond core drill, diamond saw, grinding lap, Page impact, ball mill, briquette former, cementation impact machine, etc.

The hydraulic laboratory is equipped with apparatus for conducting experiments upon the flow of water in pipes, weirs, and orifices; determination of friction loss and hydraulic gradient.

The laboratory of sanitary engineering is fully equipped to make complete chemical and bacteriological examinations of water, sewage, and milk. Students are required to perform regularly, for a short period, the routine tests conducted in connection with the operation of the Chapel Hill water purification plant, the sewage treatment plant, and the control of the milk supply.

The surveying laboratory consists of ample equipment, such as transits, levels, chains, etc., for conducting practical problems in field work.

The Electrical Engineering Laboratories

The Electrical Engineering Laboratories, located in the west end of the ground floor of Phillips Hall, consist of a large dynamo laboratory, having nearly three thousand square feet of floor space, and seven smaller laboratories. They are all supplied with power through a large seven-panel slate switchboard controlling a 25-k.w., 125-volt, direct current motor-generator set, a 5-k.w., 180-volt, Westinghouse booster set, and a 5-k.w., 6 or 12-volt, General Electric electrolytic type motor-generator set. Sub-panels in all the laboratories are connected with this switchboard by means of eight wires, and a plug and socket system of distribution makes it possible to supply any of the laboratories with several kinds of power at the same time.

The dynamo laboratory is well supplied with direct and alternating current machines of modern design for testing purposes, including a 15-kv.a. General Electric motor-generator set with revolving field alternator, wound for single, two, three or six-phase,

two 5-kv.a., 3-phase, Westinghouse motor-generator sets, two General Electric synchronous converters of 10-k.w. and 3-k.w. capacity, two 3-k.w. Westinghouse D. C. motor-generator sets, one 3-h.p. General Electric Type RF variable speed motor with compensating winding in the pole faces, a 5-h.p. General Electric 3-phase induction motor with wound rotor and drum type controller, a 3-h.p. Westinghouse and a 2-h.p. General Electric squirrel-cage induction motor, a 3-h.p. General Electric Type RI repulsion motor, and fifteen other D. C. and A. C. machines ranging from two to ten horsepower.

There is also a 50-ampere, 125-volt, General Electric mercury-arc rectifier set, a 10,000-volt testing transformer, and a number of 230-volt transformers. The laboratory has an unusually complete equipment of control rheostats, lamp banks, and inductance coils, two 100-microfarad condensers, and over one hundred portable ammeters, voltmeters, and wattmeters.

The standardization laboratory for electric and magnetic measurements is equipped with the following precision laboratory standards: one 150-volt Weston D. C. voltmeter, one 150-volt Weston A. C. voltmeter, one 100-millivolt Westinghouse D. C. millivoltmeter with a complete set of shunts, one 5-10-ampere Westinghouse Kelvin-balance type ammeter, one 200-ampere, 300-volt Westinghouse Kelvin-balance type wattmeter, a number of General Electric and Westinghouse potential and current transformers, General Electric and Westinghouse rotating-standard watthour meters, a Queen-Gray potentiometer, several bridge testing sets, a Kelvin double bridge, a capacity bridge, D'Arsonval and ballistic galvanometers and the usual equpiment of standards of resistance, inductance, and capacity.

The photometric laboratory is equipped with a standard Reichsanstalt photometer bench with three-meter track, equipped with standard track screens for daylight work, Bunsen screen, Lummer-Brodhun disappearance and contrast screens, standard Hefner lamp, a number of certified carbon and tungsten incandescent standards, a compound rotator, a luxometer for illumination surveys and a number of shades and reflectors of various types. The laboratory is also supplied with constant potential and constant current arc lamps, direct and alternating current types, a 4-ampere magnetite arc, 12-ampere flaming-arc, and a 3.5 ampere mercury-arc.

The storage battery laboratory contains a 60-cell, 120-volt, 3-ampere battery for testing and photometric work, a 60-cell, 120-volt, couple-type battery for potential tests, and a number of 6-volt portable batteries.

The research laboratory is splendidly equipped for advanced investigations. There is a complete General Electric oscillograph equipment mounted on a portable table, and a small dark room for photographic work.

A special laboratory for Freshman instruction contains a large amount of standard equipment illustrating the applications of electricity and a number of special devices, designed and built in the department shop, for teaching the fundamentals of electrical engineering.

The Power Plant and Mechanical Engineering Laboratory

The University Power Plant is located just back of Phillips Hall, in which are the Civil and Electrical Engineering laboratories. This plant furnishes electric lights, power, and water for the town of Chapel Hill and electric lights and power, water and heat for the University buildings.

The plant was built in 1916, and was designed with a view to its use as a Mechanical Engineering Laboratory. It has an ultimate capacity of 1000 horsepower. At present the boiler room contains two 168-horsepower Babcock and Wilcox boilers and one 350-horsepower Union Iron Works boiler, supplying steam at 200 pounds pressure, a 500-horsepower Cochrane feed water heater and a full equipment of boiler room auxiliaries. It also contains two large exhaust steam heaters and a live steam heater for the hot water heating system which supplies all University buildings. All of the apparatus is supplied with a full complement of flow meters, gages, thermometers, etc., so that a complete test may be run on this part of the plant.

Adjoining the boiler room is the pump room, which contains a 4-in. two stage centrifugal service pump driven by a 20-horsepower Crocker-Wheeler motor, a 50-horsepower DeLaval turbine driven centrifugal pump, a 150-horsepower General Electric-Dayton-Dowd centrifugal pump, for circulating the water in the heating system and a 1000-gallon per minute fire pump driven by a 100-horsepower Westinghouse motor.

The engine room, located over the pump room, contains a 200-kilowatt three phase, 2300-volt General Electric turbo generator, and a 25-horsepower Chandler and Taylor slide valve engine especially equipped with indicator reducing motion, prony brake, special governor, and indicator piping for experimental work. The turbo alternator has a direct connected exciter and there is also a 10-kilowatt motor generator exciter set. The electrical equipment is controlled by a five-panel remote-control switchboard made by the General Electric Company. All of the high tension switches are located in an enclosure in the pump room below. The enclosure also contains an 8-kilowatt constant current transformer for the campus lighting and street lighting of Chapel Hill and a 2300-volt starting compensator controlling the centrifugal pump which pumps the water supply from a small creek a mile north of the town. The laboratory is equipped with throttling and separating calorimeters, flow meters, thermometers, Orsat apparatus for flue gas analysis, pressure and vacuum gauge testing apparatus, indicators, and other accessory apparatus necessary for making complete tests on power plants.

THE UNIVERSITY LIBRARY

Louis Round Wilson, Ph.D., *Librarian.*
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Henrietta Rhea Smedes, *Custodian of the Rural Economics Library.*
Ernestine Kennette, A.B., *Custodian of the Engineering Library.*
Guelda Hillyard Elliott, *Custodian of the Commerce Library.*
Lucile Marshall Elliott, A.B., *Custodian of the Law Library.*

The University Library contained at the end of the academic year one hundred and twenty-three thousand, seven hundred and fifty volumes and several thousand pamphlets. This collection has been classified and catalogued according to the Dewey decimal system, and rendered accessible by means of a dictionary author, title, and subject card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Budget Committee, the Library Committee, and Professors in charge of Departments, with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is from twelve to fifteen thousand volumes, all of which are carefully classified and catalogued as they are received.

The main Library is housed in a library building erected in 1907, and represents an expenditure for construction and equipment of $81,000. The reference, current periodical, and seminar rooms in the main Library have table and seating capacity for two hundred students at one time.

The stack room containing three levels of steel shelving with stairway and glass mezzanine floor between has a capacity for one hundred and twenty thousand volumes.

A special collection of dictionaries, encyclopedias, almanacs, handbooks, atlases, concordances, and other reference books is provided for general use in the reference room.

In addition to the resources of the general reference room, the Library has a collection of ten thousand bound periodicals covering all fields of general, technical, and professional information. A great number of the sets belonging to this collection are complete, and consequently completely cover the history and progress of the subjects of which they treat.

One thousand one hundred and eighty-one current periodicals, transactions of literary, scientific, historical, and other societies, university studies, and serial publications, continuing and supplementing the bound sets, are subscribed for or secured through exchange annually. They are to be found in the general periodical room and in the seminars, professional schools, and scientific laboratories.

As the Library is a depository for the publications of the United States Government, it contains material especially valuable for reference in debate, and in the study of social and political sciences, useful arts, and the natural sciences.

Four special seminar rooms have been equipped in the general Library to facilitate advanced work in English and German Literatures and Languages, Greek and Latin Literatures and Languages, the Romance Literatures and Languages, and North Carolina History.

The North Carolina room contains all the books in the Library which relate to North Carolina, including the Weeks collection of Caroliniana. The whole makes one of the finest collections on the history of this State in the country, and with its special librarian, whose thorough knowledge of the books adds greatly to their value and use, offers rare davantages to the research student.

Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of each quarter, and to any student at any time who may request it. Instruction in a regular University class is also given to students who are preparing for positions in school and public libraries, with a view to making them more efficient in the discharge of their special duties.

DEPARTMENTAL LIBRARIES

Five departmental libraries are in charge of regular attendants: Commerce, Education, Engineering, Law, and Rural Economics. Six libraries, Botany, Chemistry, Geology, Medicine, Pharmacy, and Zoology are under the supervision of the instructors in those departments and the Librarian.

RULES

The Library is open on week days from 8:25 a. m. to 10 p. m. On Sundays from 2:30 p. m. to 4:30 p. m.

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of a regular Library fee of $4 a year, $1 for three months, or 50c a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed at the rate of five cents a day. Reserved books must not be taken from the Library until 8:30 p. m. and must be returned by 10:00 a. m. the following morning. After that hour they are subject to a fine at the rate of five cents an hour, or fraction thereof without limit. The date on the pocket or flyleaf of book is sufficient notice when the book is due.

Postal card notices are sent to borowers in regard to books overdue as a reminder but failure to receive the notice is not considered a valid excuse for not paying the fine.

Books in the reference room must not be taken from the Library.

Magazines, bound or unbound, must not be removed from the Library.

Any book or magazine that has been lost or defaced must be replaced by the borrower at the cost of the book or magazine plus a replacement fee of $1. At the discretion of the Librarian a book 4 weeks overdue may be considered lost.

A student who owes the Library for fines or lost books will not receive academic credit for his courses at the end of a quarter.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

THE UNIVERSITY OF NORTH CAROLINA PRESS

Louis Round Wilson, Ph.D., *Director*
Louis Graves, A.B., *Secretary.*

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The University of North Carolina Press was incorporated on June 12, 1922. The objects for which it was established are: (1) To publish periodicals devoted to the advancement of learning and produced at the University by or under the direction of the Faculty; (2) To publish catalogues, bulletins, and other documents pertaining to the University and its various schools and departments; and (3) To promote generally, by publishing deserving works, the advancement of arts and sciences and the development of literature.

The Press was established upon the authority of the Board of Trustees of the University, is a non-stock corporation, is financed in part by the University, and is managed by a Board of Governors drawn from the Faculty and Board of Trustees.

In addition to the publication of books, of which ten have been announced for publication during the year, the Press has established three series of studies under the title: The University of North Carolina (1) "Studies in Language and Literature," (2) "Studies in Social Science and History," and (3) "Studies in Science." The Press also publishes the following periodicals: *The*

Journal of the Elisha Mitchell Scientific Society; Studies in Philology; The James Sprunt Historical Publications; The High School Journal; The Journal of Social Forces; The North Carolina Law Review; The University of North Carolina Extension Bulletin; The University News Letter; The University of North Carolina Record; North Carolina Commerce and Industry.

The Press office is located on the second floor of the Library. The agents of the Press for Great Britain and the British Dominions are respectively: *The Oxford University Press,* London, for books and studies; *The Cambridge University Press,* London, for periodicals. A complete list of publications issued by the Press will be supplied to any address on request.

ADMISSION

ADMISSION TO THE UNIVERSITY

Candidates for admission to the University are received by certificate from accepted schools or by examination.

Entrance By Certificate. Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to examine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms furnished on application to the Registrar, and should be sent in as early as possible in the summer vacation; the uniform entrance certificates of the Association of Colleges and Secondary Schools of the Southern States will also be accepted. Candidates must present themselves in person before the Committee on the Registration of Freshmen during the period of registration.

Entrance By Examination. Entrance examinations are held in September. The University will accept the uniform entrance examination papers of the Association of Colleges and Secondary Schools of the Southern States, provided such papers are properly vouched for and sent sealed to the University for grading. The University will accept also the certificates of the College Entrance Examination Board. Candidates for admission by examination must make application to the Registrar in writing two weeks before the date for registration. Time and place for examinations will be arranged by the Registrar.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, in accordance with the amount and character of his previous training. The examining committee will accept, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing. All credits allowed by this committee stand in suspense until the candidate shall have spent one quarter in residence. If his work during this quarter is unsatisfactory, the credits may be canceled.

A candidate for advanced standing must send to the Registrar his application accompanied by an official transcript of his previous record at least two weeks before the date for registration. Blank forms may be secured by writing the Registrar.

Admission of Women

By action of the Trustees in February, 1897, women were made eligible for admission to the Graduate School of this institution. Almost immediately this action was extended so that women were eligible for admission to the two upper classes of the college. Some years later women whose training was found to be sufficient were admitted to the Professional Schools of Law, Medicine, and Pharmacy. By an extension of this action women were admitted to special courses in work that is not to be obtained in a college for women. Finally by special action in each individual case women who are *bona fide* residents of Chapel Hill may be admitted to any work in the institution for which they are qualified by previous training. In the last mentioned category the requirement as to residence is to be interpreted strictly. The rule is intended to apply to those who make Chapel Hill their home and not to those who make it a temporary residence.

Entrance Requirements

For admission to the University of North Carolina fifteen units secured by the completion of a four years' high school course are required. The applicant must either present an official certificate showing his preparatory work and the recommendation of his school, which must be on the list of accepted schools, or stand entrance examinations on an equivalent amount of preparatory work.

It must be clearly understood that admission to the University does not, necessarily, mean admission to candidacy for a degree.

In order for a student to be admitted as a candidate for a degree he must meet the specific requirements laid down by the school or college in which that degree is conferred. In some cases this will make it necessary for the candidate to carry certain courses as prerequisites over and above the courses prescribed for the degree, or to make up certain deficiencies. These deficiencies must be made good before the student may register for his sophomore year.

The preparatory student should decide, therefore, as early as possible, for which degree he wishes to become a candidate and carry such courses in his preparatory school as will admit him to candidacy for that degree.

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:

English	3 or 4 units
History	4 units
Mathematics	4 units
Greek	3 units
Latin	4.7 units
French	3 units
German	3 units
Spanish	3 units
Botany	1 or 0.5 unit
Chemistry	1 or 0.5 unit
Physics	1 or 0.5 unit
Physiology	0.5 unit
Zoology	1 or 0.5 unit
General Science	1 or 0.5 unit
Physiography	1 or 0.5 unit
Drawing	1 unit
Civics	0.5 unit
Vocational subjects	
Commercial Geography	0.5 unit
General Agriculture	2 units
Bookkeeping	1 unit
Commercial Arithmetic	1 unit
Stenography and Typewriting	1 unit
Manual Training	2 units

NOTE, that as many as four (4) units in English, four (4) units in history, and two (2) units in agriculture may be accepted. This amount of credit will be allowed only when the Registrar is satisfied that the work done in these subjects at any given school is of a superior order.

NOTE FURTHER: One (1) full unit in any of the sciences will be allowed only when satisfactory work is done in the laboratory as evidenced by the notebook, otherwise only one half (.5) unit will be allowed. In vocational subjects not more than a total of three (3) units will be credited.

PRESCRIBED REQUIREMENTS

The requirements for admission to candidacy for the different degrees in the College and the several Schools within the University are as follows:

THE COLLEGE OF LIBERAL ARTS

(The Degree A.B.)

English *a, b, c,*	3	or 4	units
History *a,*		1	unit
Mathematics, *a, b, c,*	2.5	or 3	units
Select Two: Greek *a, b,*	2	units	4 or 5.7 units
Latin a, *b, c, d,*	3.7	units	
German *a,*	2	units	
French *a,*	2	units	
Spanish *a,*	2	units	
Electives			
Total		15	units

NOTE, that two foreign languages to the amount of not less than four (4) units, or 5.7 if Latin is chosen as one, are required for admission to candidacy for the degree A.B. The languages so presented must be continued as the required foreign languages, or the elementary courses (1 and 2) of a substituted language must be taken without credit towards the degree. Elementary Greek (1-2) and Elementary German (1-2), however, when completed satisfactorily in this institution, will be counted also as electives for degree credit.

THE SCHOOL OF APPLIED SCIENCE

(The Degree S.B.)

Bachelor of Science in Chemistry

English *a, b, c,*	3	or 4	units
History *a,*		1	unit
Mathematics *a, b, c, d,*	3	or 3.5	units
French *a,*		2	units
German *a,*		2	units
Science		1	unit
Elective			
Total		15	units

NOTE, that the requirements for admission to candidacy for the degree S.B. in Chemistry call for:

French *and* German
Solid Geometry

Bachelor of Science in Geology

English *a, b, c,*	3	or 4	units
History *a,*		1	unit
Mathematics *a, b, c,*	2.5	or 3	units
French *a,* or German *a,* or Spanish *a,*		2	units
Science		1	unit
Electives			
Total		15	units

NOTE, that the requirements for admission to candidacy for the degree S.B. in Geology call for:

One modern foreign language

For admission to candidacy for the degree S.B. in Medicine see The School of Medicine, page 54.

THE SCHOOL OF ENGINEERING

(The Degree S.B.)

Bachelor of Science in Electrical, Civil, or Mechanical Engineering

English *a, b, c,*	3	or 4	units
History *a,*		1	unit
Mathematics *a, b, c, d,*	3	or 3.5	units
French *a,* or German *a,* or Spanish *a,* or Greek *a, b, or* Latin *a, b,*		2	units
Science		1	unit
Electives			
Total		15	units

NOTE, that the requirements for admission to candidacy for the degree S.B. in Electrical or Civil, or Mechanical Engineering call for:

One foreign language
Solid Geometry

THE SCHOOL OF EDUCATION

(The Degree A.B. in Education)

The requirements for admission to candidacy for the degree A.B. in Education are the same as for admission to candidacy for the A.B. in the College of Liberal Arts.

THE SCHOOL OF COMMERCE AND FINANCE

(The Degree B.S. in Commerce)

English *a, b, c,*	3	or 4	units
History *a,*		1	unit
Mathematics *a, b, c,*	2.5	or 3	units
Select Two: Latin *a, b*; German *a*; French *a*; Spanish *a*; Greek *a, b*		4	units
Electives			
Total		15	units

NOTE, that the requirements for admission to candidacy for the degree S.B. in Commerce call for:

Two foreign languages to the extent of four (4) units

THE SCHOOL OF PUBLIC WELFARE

The one year and two year courses of professional training are open to graduates of colleges of good standing.

Students not eligible to the regular courses by reason of not holding a degree may be admitted to special courses of one quarter or more provided they have had sufficient general education and practical experience to insure satisfactory work, and conform to University requirements.

THE GRADUATE SCHOOL

Holders of Bachelor's or Master's degrees from standard colleges are admitted to the Graduate School upon presentation of their credentials and without examination. Upon the vote of the Administrative Board other mature persons may be admitted as special students in courses for which they are qualified. Every student must bring to the office of the Graduate School, at the time of registration, a program of studies approved by the Department in which he proposes to specialize, or, in case of special students, the permission of the Department to register for certain specified courses.

THE SCHOOL OF LAW

Candidates for the Combined Degree A.B.-LL.B.

Students who are candidates for the combined degree of A.B.-LL.B. must have completed in the College of Liberal Arts the course prescribed. This consists of twenty-seven courses carefully selected with a view to providing the student who wishes to shorten his period of residence the best preparation for the legal profession possible under the circumstances. This course enables a student to secure in six years the combined A.B. and LL.B. degrees.

Candidates for the Degree LL.B.

Students who are candidates for the degree of LL.B. must have completed eighteen courses, or their equivalent, of college work in subjects approved by the Law Faculty of the University. Students may not enter at the opening of the second term as applicants for the degree nor, except by special permission of the Dean, in preparation for the examination for license.

Admission to Advanced Standing

A student from another law school in which the requirements for admission are at least as high as in this school, may be admitted to advanced standing for the degree of LL.B. As a rule no more than one year's work will be so credited without residence, but with the consent of the Law Faculty, two years' work may be credited in exceptional cases. A student seeking admission to advanced standing must present satisfactory evidence that the work taken in another school is substantially equivalent to that given in the corresponding year here, both in the character of the work covered and in the amount of time devoted to each subject.

Students Not Candidates for the Degree

Students taking regular work in the school, but not candidates for the degree, must, unless they are "special students," present 15 units for entrance credits in the Freshman class of the University and at least one full year (nine courses or the equivalent) of college grade work. Beginning September, 1925, the requirement as to college grade work will be two full years (eighteen courses or the equivalent).

Special Students

Mature persons twenty-one years of age or over may for the present be admitted as special students upon satisfying the Law Faculty that they have such training as will enable them to profit by the instruction given in the School.

THE SCHOOL OF MEDICINE

I. Requirements for Admission to the Pre-medical Course:

English *a, b, c,*	3 or 4	units
History *a,*	1	unit
Mathematics, *a, b, c,*	2.5 or 3	units
Select One { German *a* / French *a* }	2	units
Electives		
Total	15	units

NOTE, that the requirements for admission to the Pre-medical Course call for:
Either French or German

II. Requirements for Admission to the course leading to the degree of S.B. in Medicine:

English *a, b, c,*	3 or 4	units
History *a,*	1	unit
Mathematics *a, b, c,*	2.5 or 3	units
German *a,*	2	units
French *a,*	2	units
Electives		
Total	15	units

NOTE, that the requirements for admission to candidacy for the degree S.B. in Medicine call for:
French *and* German

III. Requirements for Admission to the Medical Course. The requirements for admission to the medical course are 2 years (60 semester hours) of college work, which must include a minimum of twelve semester hours in Chemistry (including 4 semester hours of Organic Chemistry), eight semester hours in Biology, eight semester hours in Physics, six semester hours in English, and six semester hours in a modern language (French or German) beyond that required for admission to the University. *Students will not be admitted with less than the equivalent of sixty semester hours, nor with less than the required number of hours in Science and Language subjects.*

IV. Admission to Advanced Standing. Candidates for admission to the second year of the medical course must present certificates from an accredited medical school stating that they have had the required fifteen units, the two years of college work as indicated in Section III, and have completed the subjects of the first year of the medical course as outlined.

THE SCHOOL OF PHARMACY

Candidates for the degrees of Ph.G., Ph.C., or P.D., must be on entering at least seventeen years old, and must have completed a high school course of study or must present evidence of 15 units. They may, however, enter a one-year special course within this prerequisite.

DETAILED REQUIREMENTS

The requirements in each of the subjects accepted for entrance are as follows:

ENGLISH: (1923-1925) (*a*) Grammar and Rhetoric ..... 1 unit

Attention is directed to the list of minima essentials in composition as printed by the North Carolina Department of Public Instruction in its model course for the public schools.

(*b*) Classics for Reading ..... 1 unit

Two from each of the following groups:

GROUP I.—PROSE FICTION.

Malory's *Morte d'Arthur* (about 100 pages); Bunyan's *Pilgrim's Progress,* Part I; Swift's *Gulliver's Travels* (voyage to Lilliput and to Brobdingnag); Defoe's *Robinson Crusoe,* Part I; Goldsmith's *Vicar of Wakefield*; Frances Burney's *Evelina*; Scott's Novels, any one; Jane Austen's Novels, any one; Maria Edgeworth's *Castle Rackrent,* or *The Absentee;* Dicken's Novels, any one; Thackeray's Novels, any one; George Eliot's Novels, any one; Mrs. Gaskell's *Cranford;* Kingsley's *Westward Ho!* or *Hereward, the Wake;* Reade's *The Cloister and the Hearth;* Blackmore's *Lorna Doone;* Hughes' *Tom Brown's Schooldays;* Stevenson's *Treasure Island,* or *Kidnapped,* or *Master of Ballantrae;* Cooper's Novels, any one; Poe's *Selected Tales;* Hawthorne's *The House of Seven Gables,* or *Twice Told Tales,* or *Mosses from an Old Manse;* A collection of short stories by various standard writers.

GROUP II.—SHAKESPEARE.

Shakespeare's *Midsummer Night's Dream, Merchant of Venice, As You Like it, Twelfth Night, The Tempest, Romeo and Juliet, King John, Richard II, Richard III, Henry V,* and *Coriolanus;* and, if not chosen for study, *Julius Caesar, Macbeth* and *Hamlet.*

GROUP III.—POETRY.

Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; *Golden Treasury* (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study); Goldsmith's *The Traveler,* and *The Deserted Village;* Pope's *The Rape of the Lock;* a collection of English and Scottish ballads, as, for example, some Robin Hood ballads, *The Battle of Otterburn, King Estmere, Young Beichan, Bewick and Grahame, Sir Patrick Spens,* and a selection from later ballads; Coleridge's *The Rime of the Ancient Mariner, Christabel,* and *Kubla Khan; Byron's Childe* Harold, Canto III, or IV, and *The Prisoner of Chillon; Scott's The Lady of the Lake* or *Marmion;* Macaulay's *Lays of Ancient Rome, The Battle of Naseby, The Armada,* and *Ivry;* Tennyson's *The Princess,* or *Gareth and Lynette, Lancelot and Elaine,* and *The Passing of Arthur* (if not chosen for study); Browning's

Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Ineident of the Freneh Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper, "De Gustibus—," Instans Tyrannus (if not chosen for study); Arnold's *Sohrab and Rustum,* and *The Forsaken Merman;* selections from American poetry; with special attention to *Poe, Lowell, Longfellow, and Whittier.*

GROUP IV.—BIBLICAL NARRATIVE; ESSAYS, ETC.

The Old Testament, comprising at least the chief narrative episodes in *Genesis, Exodus, Joshua, Judges, Samuel, Kings* and *Daniel,* together with the books of *Ruth* and *Esther;* Addison and Steele, *The De Coverley Papers* (selections from *The Spectator*); Selections from Boswell's *Life of Johnson* (200 pages); Franklin's *Autobiography*; Selections from Irving's *Sketch Book* (200 pages) or his *Life of Goldsmith;* Southey's *Life of Nelson;* Lamb, Selections from *Essays of Elia* (about 100 pages); Lockhart's Selections from the *Life of Scott* (about 200 pages); Thackeray's Lectures on Swift, Addison, and Steele in the *English Humorists;* Macauley's essays, any one of the following: *Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederick the Great, Madame d'Arblay;* Trevelyan's Selections from the *Life of Macaulay* (about 200 pages); Ruskin's *Sesame and Lilies,* or Selections (about 150 pages); Dana's *Two Years Before the Mast;* Lincoln's Selections, including at least the two *Inaugurals,* the *Speeches in Independence Hall* and at *Gettysburg,* the *Last Public Address,* the *Letter to Horace Greeley,* together with a brief memoir or estimate of Lincoln; Parkman's *The Oregon Trail;* Thoreau's *Walden;* Lowell's Selected Essays (about 150 pages); Holmes' *The Autocrat at the Breakfast Table;* Stvenson's *An Inland Voyage* and *Travels with a Donkey;* Huxley's *Autobiography* and selections from *Lay Sermons,* including the addresses on *Improving Natural Knowledge, A Liberal Education,* and *A Picce of Chalk;* A Collection of Essays by Bacon, Lamb, De Quincey, Hazlitt, and Emerson and later writers; a collection of letters by various standard writers.

GROUP V.—MISCELLANEOUS.

For any selection from this group a selection from any preceding group may be substituted.

Howells, *A Modern Instance, The Rise of Silas Lapham;* A Collection of Contemporary Verse (about 150 pages); A Collection of Prose Writings on Matters of Current Interest (about 150 pages); Two Modern Plays, such as Peabody's *The Piper* or Drinkwater's *Abraham Lincoln.*

(*e*) Classics for Study ..... 1 unit

One selection from each of the following groups:

GROUP I.—DRAMA.

Macbeth or Hamlet.

GROUP II.—POETRY.

Milton's *L'Allegro, Il Penseroso,* and either *Comus* or *Lycidas;* Tennyson's *The Coming of Arthur, The Holy Grail,* and *The Passing of Arthur;* Browning, selections listed in GROUP III above.

GROUP III.—BIOGRAPHY.

Macaulay's life of *Johnson;* Carlyle's essay on *Burns,* with a selection from Burns' Poems; Arnold's *Wordsworth,* with brief selection from Wordsworth's Poems.

GROUP IV.—ORATORY.

Burke's speech on *Conciliation with America;* A collection of orations to include at least Washington's *Farewell Address,* Webster's *First Bunker Hill Oration,* and Lincoln's *Gettysburg Address.*

HISTORY: (*a*) The history of the United States, as outlined in the best text-books for high schools ..... 1 unit

(*b*) The history of Greece and Rome as outlined in the best text-books for high schools ..... 1 unit

(*c*) The history of England as outlined in the best text-books for high schools ..... 1 unit

(*d*) Mediæval History ..... 1 unit

MATHEMATICS: (*a*) Elementary Algebra ..... 1 unit

A high school algebra to quadratic equations.

(*b*) Advanced Algebra ..... .5 or 1 unit

Review of elementary algebra and a study of quadratic equations, the binomial theorem, and progressions.

(*c*) The whole of Plane Geometry ..... 1 unit

(*d*) The whole of Solid Geometry ..... .5 unit

(*e*) Trigonometry ..... .5 unit

Plane trigonometry and spherical trigonometry through right triangles.

GREEK: (*a*) Grammar and Composition ..... 1 unit

Acquaintance with the more usual forms and constructions; simple narrative in English based upon Xenophon's Anabasis, to be translated into Greek.

(*b*) Xenophon ..... 1 unit

The first four books of the Anabisis.

(*c*) Homer ..... 1 unit

The first three books of the Iliad (omitting II, 494—end), with study of Homeric forms, constructions, and prosody.

LATIN: (*a*) Grammar and Composition ..... 1 unit

Forms, syntax, and prosody; simply narrative in English, based upon the prose read, to be translated into Latin.

(*b*) Cæsar ..... 1 unit

The first four books of the Gallic War.

(*c*) Cicero ..... .7 unit

The four orations against Catiline.

(*d*) Vergil ..... 1 unit
The first six books of the Æneid, study of hexameter verse.

(*e*) Cornelius Nepos ..... 1 unit
The first fifteen lives.

FRENCH: (*a*) Elementary (Two-year course) ..... 2 units
The forms and uses of the various parts of speech, including irregular verbs; translation of 200 or more pages of modern prose into idiomatic English; translation of simple English sentences into French; emphasis on pronunciation, with phonetic drill and as much oral practice as possible. The 200 pages of reading should be selected from texts such as the following: Méras & Roth: Petit Contes de France; Labiche et Martin: Le Voyage de Monsieur Perrichon; Halévy: L'Abbé Constantin; Contes de Daudet; Maupassant: Conte Choisis.

(*b*) Intermediate ..... 1 unit
Translation of 400 or more pages of French of ordinary difficulty; composition.

GERMAN: (*a*) Elementary (Two-year course) ..... 2 units
Inflection, including the most common strong verbs; the ordinary laws of German syntax; translation of 200 or more pages of easy German into idiomatic English; translation of simple English sentences, based upon passages read, into German.

(*b*) Intermediate ..... 1 unit
Translation of 400 or more pages of German of ordinary difficulty.

SPANISH: Elementary (Two-year course) ..... 2 units
Pronunciation: a thorough drill in Spanish sounds, with oral reading and class-room conversation. Grammar: a complete grounding in syntax; verbs, regular, radical-changing, and irregular, in the various moods, tenses, and constructions; nouns, pronouns, adjectives, and adverbs, including the more frequent idioms; conjunctions and prepositions; common idioms. Reading: translation of approximately 200 pages of easy Spanish prose into English, with special attention to idiomatic rendering. Composition: translation of English sentences into Spanish, based on the grammar and class reading. The 200 pages of reading should be selected from texts such as the following:

Uribe-Troncoso, Por tierras mejicanas; Fuentes y François, A trip to Latin America; Taboada, Cuentos alegres; Roessler and Remy, First Spanish Reader; Ewart, Cuba y las costumbres cubanas; Wilkins, Beginners' Spanish Reader.

GENERAL SCIENCE:* ..... .5 or 1 unit
A course such as is contained in Caldwell and Eikenberry's General Science; laboratory work. *Holden's Real Things in Nature will not be credited for this work.*

* A credit of one unit is given only when the course is accompanied by laboratory work, a suitable record of which is kept in a notebook. In case the laboratory work is omitted only .5 unit will be allowed.

BOTANY:* ..... 5. or 1 unit

A course such as is contained in any standard text-book; laboratory work.

CHEMISTRY:* ..... .5 or 1 unit

A course such as is contained in any standard text-book; laboratory work.

PHYSICS:* ..... .5 or 1 unit

A course such as contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

ZOOLOGY:* ..... .5 or 1 unit

A year's course such as is contained in any standard text-book; laboratory work.

PHYSIOGRAPHY:* ..... .5 or 1 unit

A course such as is contained in any standard text-book; laboratory work or its equivalent.

PHYSIOLOGY: ..... .5 unit

A course such as is contained in any standard text-book.

CIVICS: ..... .5 unit

A course such as is contained in any standard text-book.

DRAWING: ..... 1 unit

A year's work, including simple geometrical plane and solid figures, simple pieces of machinery, elementary rules of perspective, light and shade, as applied in freehand sketching.

VOCATIONAL SUBJECTS

The University will accept, as elective units for entrance, work in the vocational subjects outlined below, to the value of not more than three units. Credit will be allowed for these subjects only after special investigation as to the merit of the work done. The content of these courses is essentially the same as that adopted by the Association of Colleges and Preparatory Schools of the Southern States.

GENERAL AGRICULTURE: ..... 2 units

A four year course consisting of three recitation periods and two double laboratory periods a week, extending through four school years.

BOOKKEEPING: ..... 1 unit

A one year course covering the simple forms in single and double entry bookkeeping.

COMMERCIAL ARITHMETIC: ..... 1 unit

A one year course such as is contained in any standard text-book of commercial or business arithmetic.

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* A credit of one unit is given only when the course is accompanied by laboratory work, a suitable record of which is kept in a notebook. In case the laboratory work is omitted only .5 unit will be allowed.

COMMERCIAL GEOGRAPHY: ..... .5 unit

A half-year course such as is contained in any standard text-book.

STENOGRAPHY AND TYPEWRITING: ..... 1 unit

Credit will be allowed for work in these two subjects only if presented together. Neither subject will be credited separately.

MANUAL TRAINING: ..... 2 units

A total of not more than two units may be presented from the list of courses in shop work recommended by the Committee on Manual Training of the Southern Commission on Accredited Schools. The time required for each unit is to be not less than 240 sixty-minute hours.

EXPENSES

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The entire annual expenses need not exceed $500 and they frequently may be reduced to $400.

Tuition and Fees

College of Liberal Arts:

Tuition fee each quarter	$20.00
*Registration fee each quarter	12.00
Publications fee each quarter	1.83
Laundry fee each quarter	8.50
Total each quarter	$42.33

School of Engineering:

Same as for the College.

School of Applied Science:

Same as for the College.

School of Education:

Same as for the College.

School of Commerce:

Tuition for each quarter	$20.00
*Registration fee each quarter	12.00
Publications fee each quarter	1.83
Laundry fee each quarter	8.50
Materials fee each quarter	1.00
Total each quarter	$43.33

School of Public Welfare:

Same as for the College.

Graduate School:

Same as for the College.

* This fee includes the gymnasium fee, the library fee, the fee for attendance of the University physician, the fee for debates.

School of Law:

Tuition for fall and spring terms, each	$37.50
*Registration fee each term	18.00
Publications fee each term	2.75
Laundry fee each term	12.75
Total each term	$71.00

School of Medicine:

*Tuition fee, including all fees, each quarter	$67.00
Publications fee each quarter	1.83
Laundry fee each quarter	8.50
Total each quarter	$77.33

School of Pharmacy:

Same as for the College.

FEES

LAUNDRY FEE: Students will be required to send their washing to the University Laundry for which a deposit will be collected at the time of registration.

LABORATORY FEES: Every student taking a laboratory course must pay, in addition to his tuition fee, a small fee for power or materials used in the laboratory. The fees for the various laboratory courses are as follows:

BOTANY

1	$4.00	4-5-6	$4.00 a quarter
2	4.00	107-108-109	4.00 a quarter
3	4.00	110-111-112	4.00 a quarter

CHEMISTRY

1-2	$ 4.00 a quarter	61	$ 7.00
1-2E	4.00 a quarter	62	7.00
11-12	7.00 a quarter	63	7.00
21-22-23	10.00 a quarter	64	7.00
31	10.00	73	5.00
35	10.00	81	4.00
41	10.00	82	4.00
42	10.00	117-118-119	10.00 a quarter
45	7.00	127-128-129	10.00 a quarter
46	7.00	177-178-179	10.00 a quarter
47	7.00	197-198-199	10.00 a quarter

* This fee includes the gymnasium fee, the library fee, the fee for attendance of the University physician, the fee for debates.

COMMERCE

A	$ 3.50 a quarter	7	$ 2.00
1-2-3	3.00 a quarter	9	2.50
4-5-6	3.00 a quarter	20-21-22-23-36	1.00 a quarter

ENGINEERING

6abc	$2.00 a quarter	45abc	$ 3.00 a quarter
11bc	2.00 a quarter	50abc	5.00 a quarter
16c	2.00	60abc	5.00 a quarter
26abc	2.00 a quarter	61abc	6.00 a quarter
23s	10.00	62abcs	4.00 a quarter
22abc	2.00 a quarter	63abcs	5.00 a quarter
30	10.00 a quarter	64abc	7.00 a quarter
32bc	2.00 a quarter	93abcs	5.00 a quarter
35abc	2.00 a quarter		

GEOLOGY

1-2	$ 3.00 a quarter	14	$ 3.50
3-4	5.00 a quarter	15	3.50
5	3.50	18-19-20	3.50 a quarter
7	3.00	21-22	2.50 a quarter
8-9	3.50 a quarter	23-24	2.50 a quarter
10	3.50	25	2.00 a quarter
11-12	3.50 a quarter	61	3.50
13	3.50	71-72-73	3.50 a quarter

PHARMACOLOGY

10	$ 5.00

PHARMACY

4-5	$ 7.50 a quarter	20-21-22	$ 5.00 a quarter
14-15	10.00 a quarter		

PHYSICS

1	$ 2.50	6	$ 2.00
2	4.00	8	2.00
1-2-3E	2.50 a quarter	9	2.50
5	2.50	12	5.00

PSYCHOLOGY

1-2	$ 1.00 a quarter	36-45-51-52-53	$ 2.00 a quarter
20-22-25-46	1.00 a quarter	101-102-103	2.00 a quarter
26-35	1.50 a quarter		

ZOOLOGY

1b	$ 5.00	6-7-8	$ 3.00 a quarter
2b	5.00	9	5.00
3	5.00	109-110-111	5.00 a quarter
4	5.00	112 (1)	5.00 a quarter
5	5.00	112 (½)	3.00

Board

Excellent board is furnished at Swain Hall for $22.00 a month. A few students can earn their board by waiting on the tables.

Board without room can be obtained in the town from $22.50 to $35.00 a month.

Dormitory Accommodations

Accommodations for something over thirteen hundred students are available in the University dormitories. For a list of the dormitories see pages 32-33.

All rooms in the dormitories are completely furnished. Students will, however, provide their own pillow, bed linen (single beds), and towels.

Room rent ranges from $5.00 to $9.50 a month for each occupant, the price depending upon the location of the room. This charge includes light, heat, and service.

PECUNIARY AID

FELLOWSHIPS AND SCHOLARSHIPS

The Ledoux Fellowship in Chemistry. (Established in 1911 by Dr. Albert R. Ledoux). The holder is expected to devote himself to research in chemistry. This fellowship is endowed, and yields $300 annually.

The Julian S. Carr Fellowship, endowed in 1916 by General Julian S. Carr. A fellowship valued at about $300 to be awarded at Commencement each year to a member of the rising Junior class or Senior class who has shown by the high quality of his scholastic work that he is worthy of help, and who, during his first years in college, has earned his way in whole or in part. The holder of this fellowship is selected by a faculty committee, and applications should be made before May 15.

The Graham Kenan Fellowship in Philosophy. A fellowship supported by the income from an endowment of twenty-five thousand dollars, established in 1921, by Mrs. Graham Kenan, in memory of her husband, an alumnus and trustee of the University. This Fellowship is awarded annually by Professor Henry Horace Williams.

The Moore Scholarships. (Established in 1881). Bartholomew Figures Moore, of Raleigh, bequeathed $5,000, the interest of which shall be devoted to paying the tuition of students.

The Mary Ruffin Smith Scholarships. (Established in 1885). Miss Mary Ruffin Smith bequeathed to the University, in memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham County of 1,460 acres, known as Jones' Grove. The will provides that rents of the land, or the interest on the purchase money if sold, shall be used to pay the tuition of such poor students as the faculty shall appoint.

The Mary Ann Smith Scholarships. (Established in 1891). Miss Mary Ann Smith bequeathed $37,000 for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE CAMERON SCHOLARSHIPS. (Established in 1892). The heirs of Paul Carrington Cameron founded in his memory ten scholarships of the value of $60 each.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892). The late Mrs. Mary Shephard Speight bequeathed $10,000 to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIPS. (Established in 1892). Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, two scholarships of the value of $60 each, one in medicine and one in the college.

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES' SCHOLARSHIP. (Established in 1893). The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of $60 each, recipients of which shall give assistance in the Library.

THE WEIL SCHOLARSHIP. (Established in 1898). A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of $60.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904). These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the Class of 1888, High Point, N. C.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904). These scholarships have been founded by Mrs. Shirley Carter, of Baltimore, Md., and the late Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE DONALD FAIRFAX RAY SCHOLARSHIP. (Established in 1919). Mrs. N. W. Ray, of Fayetteville, N. C., has established this scholarship in memory of her son, Donald Fairfax Ray, a graduate of the University, who died while in the service of his country.

THE MILDRED WILLIAMS BUCHAN SCHOLARSHIP. A fund of one thousand dollars established in 1920 by Mr. Edward Robertson Buchan, in memory of his wife, the income of which is to support a scholarship in the Department of Philosophy.

The Holt Scholarships. Four scholarships, valued at one hundred and twenty-five dollars each, are maintained by the income from the Holt Loan Fund, established in 1920 by Mr. Lawrence S. Holt, Jr. They are awarded by the Committee on the Holt Fund, to a member of each of the four classes in the Academic Department. Applications are considered after the opening of the University in the fall.

The Alumni Scholarships. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each $1,000 given.

The R. H. Lewis Scholarships. Four scholarships, endowed by the University Gymnasium Association, and called The R. H. Lewis Scholarships, are assigned by the President, and are good for tuition in the Academic Department.

None of these scholarships is open to students in the Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August first, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the President.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. In order to secure this free tuition, young men preparing to teach must agree to teach in North Carolina for at least two years after leaving the University. Such students must have their work under the supervision of the Dean of the School of Education in order to insure their being prepared to teach when they have completed their work here. This enables the University to aid affectively the public school teachers of the State.

LOAN FUNDS

The Deems Fund. (Established in 1879). A fund of $600 was established by Rev. Charles Force Deems, D.D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieut. Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munifi-

cence of Mr. William H. Vanderbilt by a gift of $10,000 "as an addition to the Deems fund, to be loaned to indigent students of the University."

THE MARTIN FUND. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the interest of the fund can be used for loans. It became available during the session of 1907-1908.

THE HOGUE FUND. A fund of $4,000 has been established by the Rev. R. W. Hogue, of Baltimore, the income from which is to be loaned to worthy students in the University.

THE HEWITT FUND. A fund of $20,000 was established by the bequest of Mr. Joseph Henry Hewitt, of Princess Anne County, Virginia. Only the income from this fund can be used for loans to "needy and deserving students" of the University. This fund became available during the session of 1919-1920.

THE HOLT FUND. A fund of $10,000 has been established by Mr. Lawrence S. Holt, Jr., of Burlington. The principal of this fund is to be loaned to "worthy and needy students of the University." The income from this fund is to be used in establishing four scholarships in the University. It became available during the session of 1920-1921.

THE VICTOR S. BRYANT FUND. A fund of $7,500 has been established by the bequest of Mr. Victor S. Bryant, of Durham. Only the interest of this fund can be used for loans to "worthy and needy young men" at the University. This fund became available during the session of 1920-1921.

THE MASONIC LOAN FUND. A fund of $1,250 has been established by the Grand Lodge of Masons, the Grand Chapter of Royal Arch Masons, and the Grand Commandery of Knights Templar, of North Carolina, for the purpose of "assisting worthy boys and girls to secure an education." The principal of this fund is loaned, and the interest is added thereto. The fund became available in the fall of 1922.

THE SEELY FUND. A fund of one thousand dollars has been established by Mr. F. L. Seely of Asheville, the principal of which is to be loaned to worthy and needy students, and the income therefrom to be added to the principal. This fund became available during the fall of 1922.

Applications for loans will be considered when made in person by students registered in the University. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest. Application should be made to the Dean of Students.

Self Help

It is confidently believed that no institution offers wider opportunity for self-help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every form of honorable labor. A number are here as a result of money earned or borrowed. A few students are selected by the authorities as waiters at Swain Hall. Otherwise, all opportunities available in the University and town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help. They are not assigned by the President.

MEDALS AND PRIZES

The Mangum Medal in Oratory. (Established 1878). A gold medal founded by the Misses Mangum, late of Orange County, in memory of their father, Willie Person Mangum, Class of 1815, is continued by his granddaughter, Mrs. Stephen B. Weeks, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

The Early English Text Society Prize. (Established in 1886). A special prize is offered annually by the Early English Text Society of London for advanced work in Anglo-Saxon and Middle English.

The Eben Alexander Prize in Greek. (Established in 1887). A prize of $10 is offered annually to that member of the Sophomore Class who shall present the best rendering into English of selected passages of Greek not previously read.

The Kerr Prize in Geology and Mineralogy. (Established in 1889.) A prize of $50 is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student for the best thesis containing original work in the geology or mineralogy of North Carolina.

The Bingham Prize in Debate. (Established in 1899). This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are reprsentatives of the Literary Societies, and the contest is held on Tuesday evening of Commencemcnt week.

The Bryan Prize. (Established in 1903). A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

The Hunter Lee Harris Memorial. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually, in memory of Hunter Lee Harris, of the Class of 1889, a gold medal for the best original story by any student in the University.

The William Cain Prize in Mathematics. (Established in 1908). A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 4-5. No student will be recommended for the prize unless he attain to grade B.

The Preston Cup, given by the Hon. E. R. Preston in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Mary D. Wright Memorial Medal, given by Mr. P. E. Wright of Landis. A $25 gold medal will be awarded to the best speaker on the winning team of the two Literary Societies in their annual debate held in December.

The Marvin Carr Prize in Chemistry to the value of twenty-five dollars is given by General Julian S. Carr in memory of his son to the senior in the course leading to Bachelor of Science in Chemistry who makes the highest average in his course.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

REGULATIONS

The catalogue, issued in the spring of each year, is intended to give such a description of the work of the University and such a digest of its rules as are needed by students. Neither the courses announced nor the rules given are valid beyond the succeeding year, for before the end of the succeeding year a new catalogue will have been issued, superseding all previous catalogues. Ordinarily a student may expect to be allowed to secure a degree in accordance with the requirements of the curriculum laid down in the catalogue in force when he first entered the University, or in any one subsequent catalogue published while he is a student; but the faculty reserves the right to make changes in curricula, as in rules, at any time when in its judgment such changes are for the best interests of the students and the University.

REGISTRATION

All students are expected to present themselves for registration *Tuesday* or *Wednesday, September 16* or *17, 1924,* between the hours of 9 a. m. and 5 p. m., at the places announced in the plan for registration. For the winter and spring quarters the same hours will be used for Freshmen and Sophomores on days fixed by the calendar for the registration of students. All other students must register during the examination periods in December and March according to a schedule published immediately before these examinations begin. Registration in case of such students is not considered as completed until they have attended all their classes on the first day of the new quarter.

DELAYED REGISTRATION

The penalty for delayed registration for the winter and spring quarters is one month of strict probation for each day of delay. No excuses will be accepted.

Each student registering later than the day appointed for his registration for the winter or the spring quarter must pay five dollars ($5.00) as an additional fee for delayed registration.

ARRANGEMENT OF COURSES

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take fewer than three nor more than three and one-half courses without special permission of his Dean.

Students desiring to change their courses must make written application to their respective Deans for the desired changes. The application will be considered by the Dean and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty. A fee of twenty-five cents will be charged for each item of change.

ASSIGNMENT OF ROOMS

The rooms in the University dormitories are assigned to students by the Treasurer in the order of application, subject to the special regulations given below.

The University reserves the right to require any student whom for any reason it considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract, subject to the following special rules:

In order to retain his room for the next session, a student must file with the Treasurer before June 15, a room contract properly signed and a deposit of $5. Double rooms must be signed for by both intending occupants. The rooms thus signed for will be retained until September 1, when balance of rent is due. The $5 deposit will be forfeited in case the signer or signers do not themselves occupy the room and pay the full rent. Rooms not signed for or made vacant by failure to pay at the proper date will be assigned in the order of application.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt on the part of an occupant of a room to sell or transfer his right to occupancy shall be deemed a fraudulent transaction. The penalty for violating this rule shall be the forfeiture of the room by the new lessee.

The occupant of a room will be held directly responsible for any damage done to the furniture in his room or to the room.

No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form (presence at hazing is regarded as participation), or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be required to leave the University.

Honorable dismissal has reference to conduct and character only. It will not be granted unless the student's standing as to conduct and character is such as to entitle him to continue in this University. Furthermore, in every statement of honorable dismissal full mention will be made of any probation, suspension, or other temporary restriction imposed for bad conduct which is still in force when the papers of dismissal are issued.

Statement of record has reference to the recorded results of a student's work in the classroom. It will in every instance contain all the important facts pertaining to the student's admission, classification, and scholarship. In particular, no partial or incomplete classroom record (for example, with failures omitted) will be given without clear evidence that it is partial or incomplete. If the student's scholarship has been such as to prevent his continuance in this University or to render him subject to any probation, suspension, or other temporary restriction which is still in force at the date of the record, a plain statement of any and all such facts will be included, and such information will be given as will make clear the system of grades employed, the number of exercises a week devoted to each course, etc.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any quarter, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class.

When a student's absences from a class during any quarter amount to ten in a full course or six in a half-course, he may, at the discretion of the Dean of his College or School, be dropped from the course. The Registrar will notify the Dean of his College or

School when a student has incurred absences amounting to three in a full course or two in a half-course. At the same time the Dean will be supplied with a statement of the number of absences warranted by the University Physician's report or by a leave of absence. When at least half the absences of a student in any course are due to prolonged sickness or to leaves granted by the Registrar, or to representing the University as a member of an authorized student organization, the student ordinarily will not be dropped from such course.

A student who has been dropped for absences from a sufficient number of classes to reduce his schedule to one course will be suspended from the University for the remainder of the quarter on the ground of neglect of duty.

The grade of a student who quits a course without the permission of the Dean of his College or School is recorded officially as F.

A student who is absent from any class without permission on the day immediately preceding or immediately following a holiday or recess shall go on strict probation for thirty days. Any student may appeal his case in writing within five days to the Executive Committee.

Attendance at chapel is required of Freshmen every week-day except Saturday and of Sophomores and Juniors on Mondays and Fridays. Absence from chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the Registrar or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular written examinations are required at the end of each quarter in all courses except those the nature of which is such as to make written examinations unnecessary.

Special examinations for students who have been officially excused from regular examinations on account of sickness or have been absent on account of some necessary cause may be held at suitable times fixed by the Registrar and the instructors concerned. Such examinations must be taken within twelve (12) months of the date of absence.

Special examinations may be taken by students who have received the condition grade (E) or have been officially excused

within the preceding twelve (12) months from regular examinations at the period of special examinations in the week preceding the opening of the session in September.

Provided he has no conflict with a course regularly taken by him in the term such a student may take an examination at the *first* regular term examination in the same subject after he has made the grade E or has been officially excused.

Under no circumstances may a student stand a special examination to remove a condition grade (E) between the first and the last class days in any quarter.

To be entitled to take a special examination in term, or at the September period, or at a regular term examination period, the student is required to file with the Registrar at least one week prior to the examination period a written notice that he desires to take such examination. Final examinations except in laboratory practice may not be held at any times other than those specified in the preceding regulations.

No examinations may be held later than 6:30 p. m.

All examinations must be held in Chapel Hill.

Examinations should be limited to a period of two hours. In courses in which a considerable portion of the examination is of a *practical* nature, the instructor may extend the time in his discretion.

No students other than the following should be permitted to take the examination in any course: 1st—regularly enrolled members of the class whose names have been reported from the Registrar's office to the instructor as having registered in due form for the course; and 2nd—those whose names have been reported from the Registrar's office as having the right to take special examinations on that course.

Students absent from an examination without an official excuse or present and failing to submit examination papers are reported "absent." This mark is equivalent in every respect to grade F or failure, and is so reckoned in the office of the Registrar.

Each student is required to subscribe his name to the following pledge or its equivalent on every paper: I hereby certify that during this examination I have neither given nor received aid. The instructor should not report a grade for any student whose examination paper lacks this pledge.

Papers handed in at special examination by students who have been officially excused from the regular examination will be graded. All others will be marked "passed" or "failed."

Schedules of examinations at the ends of the terms and in September are to be so arranged that examinations set for the last day of the period shall be set for the first day of the next period.

The order of examinations for the removal of conditions in September, 1924, will be as follows:

Wednesday, September 10.

10 A. M.	Geology	2:30 P. M.	Education
	Psychology		English
	Rur. Econom.		German

Thursday, September 11.

10 A. M.	Accounting	2:30 P. M.	Civ. Engineering
	Chemistry		Hist. and Govt.
	Philosophy		Mathematics

Friday, September 12.

10 A. M.	Economics	2:30 P. M.	Bus. Admin.
	Romance Lang.		Greek
	Zoology		Physics

Saturday, September 13.

10 A. M.	Botany	2:30 P. M.	
	Elec. Eng'g.		
	Latin		

STANDING

After the close of each term reports of the standing of all students in all their studies are sent to parents or guardians. The reports are based upon the following systems of marking:

Grade A, Excellent.
Grade B, Good.
Grade C, Fair.
Grade D, Barely passed.
Grade E, Conditioned.
Grade F, Failed.
Grade I, Work incomplete.

A student must attain a grade of D to pass in any study. Grade E indicates that the student is conditioned but may remove the

deficiency by special examination, as explained above. Students receiving grade F must repeat the study to receive any credit for the same.

A student has the right to appeal as to the grading of his examination paper by his instructor. The appeal must be made to the President within three months after the examination. The President will appoint a committee of three persons who shall consider the case and whose decision shall be final.

A student to be ranked as a Sophomore must have passed seven courses; to be ranked as a Junior, fifteen courses, to be ranked as a Senior, twenty-six courses.

No first-year student who fails to pass at least five courses, and no second or third-year student who fails to pass seven courses, shall be readmitted to any division of the University the following year except by a special vote of the Faculty or a delegated committee of the Faculty.

GRADUATION

Each Senior will be officially informed by the Registrar in September of all deficiencies standing against him.

The number of orations in the contest for the Mangum Medal is limited to four. The candidates must be Seniors in the College, the School of Applied Science, the School of Engineering, the School of Education, or the School of Commerce, and must announce their subjects to their respective Deans by February 1. The orations shall be delivered in private on May 1, before a committee of the Faculty, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

FRATERNITIES

GENERAL REGULATIONS. Students may join fraternities after registration at the opening of any quarter or term provided they are eligible under the special regulations of the Faculty. Pledging of a student to join a fraternity is not allowed until he has been in the University a specified length of time as follows: If he matriculates for the first time in the University in the Summer School or in the fall quarter, he may not be pledged until the pledge date in December; if in the winter quarter, until a similar date in March; if in the spring quarter, until a similar date in May. The pledge dates shall be determined and published by the Pan-Hellenic Coun-

cil not later than as follows: for the fall quarter, October fifteenth; for the winter quarter, January twenty-fifth; for the spring quarter, April tenth. These pledge dates shall fall within a period between ten and fifteen days prior to the first day of the examination period for each quarter. No student may be pledged during the Summer School, but if a student remains in the Summer School for the full twelve weeks, it may be counted for him as a regular quarter towards meeting the requirement as to residence. A student entering the University with advanced standing, whether he enters an academic or a professional school, may not be pledged until four weeks after the date of his matriculation in this institution, but in no case may a student be pledged during the Summer School.

ATHLETICS

Organization

I. *The Faculty Committee on Athletics,* consisting of seven members, controls and directs all matters pertaining to the general athletic policy of the University, the eligibility of players, and the approval of schedules.

II. *The Athletic Council,* consisting of the graduate manager, the managers of all athletic teams, the editor of the *"Tar Heel,"* a member from the student body at large, and a member of the faculty, apportions the athletic funds.

III. *The Alumni Athletic Council,* consisting of the graduate manager and five alumni, one of whom must be a member of the faculty, has entire charge of the coaching staff.

The eligibility of players on the University athletic teams is governed by the Rules of Eligibility of the Southern Conference (see pages 81-83) and by the following:

1. No student will be allowed to take part in athletic contests entailing absence from the University whose parent or guardian objects to such participation.

2. A student must have passed satisfactory examinations upon at least two full courses or their equivalent in his last quarter of attendance before he will be allowed to represent the University in any athletic contest. No student may be a candidate for the baseball team unless he has been in attendance during the preceding winter quarter without the express permission of the Faculty Committee on Athletics.

3. Inasmuch as a member of an athletic team of this University enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable. Any student reported as deficient in a majority of his classes may be prohibited by the Dean of his school from participating in any intercollegiate contest until the deficiency is made good.

4. No team will be allowed to be absent from the University for more than ten lecture days during any quarter.

5. The manager of each athletic team shall submit to the Faculty Committee on Athletics a schedule of all engagements before positive arrangements are made.

6. No student shall play upon any athletic team except after physical examination by the Director of the Gymnasium (or by a responsible expert officer of the University acting in his stead and at his request) and with the approval of the Director.

7. Before any student can become a member or a substitute member of any athletic team of the University and take part in any intercollegiate contest he must make application to the Faculty Committee on Athletics and secure the endorsed approval of that committee to his application. It shall be the duty of the Faculty Committee on Athletics to have the Registrar of the University indorse such application to the effect that the applicant is a registered student of the University and has completed the scholastic requirements.

8. It is the duty of the Faculty Committee on Athletics to inquire into the athletic record of the applicant and it shall be the duty of the applicant to appear before the committee and answer on his honor such questions as the committee may see fit to ask.

9. It is the duty of the Faculty Committee on Athletics to require a pledge in writing of the applicant, certifying on his honor that he has never accepted, directly or indirectly, remuneration, compensatory gift, valuable consideration, or promise thereof for his athletic services. The applicant must satisfy the committee that he is in the proper and strict sense of the word an amateur before the committee indorses his application.

10. It is the duty of the graduate manager, the members of the coaching staff, the president and the treasurer of the Athletic Association, the members of the Athletic Council, the director of the

gymnasium, and the captain of the team concerned to furnish the Faculty Committee on Athletics, on request, a statement to the effect that each member of an athletic team is above their suspicion as to his eligibility to represent the University as an amateur before such player shall be allowed to take part in any contest.

Rules of Eligibility of the Southern Conference

The following rules apply to all sports:

Rule 1.—*Bona Fide Students.* No one shall participate in any intercollegiate contest unless he is a bona fide matriculated student regularly enrolled and doing full work as defined by the regulations of the institution in which he is enrolled.

A student in special agricultural or other special courses who does not present the full entrance credits is not eligible under this rule.

Rule 2.—No person shall participate in intercollegiate athletics at an institution until after the expiration of twelve months from the date of his matriculation there, and until he shall have completed the scholastic requirements of that institution.

Rule 3.—*Attendance.* No student having been a member of any athletic team of his college during any year and having been in attendance less than six months of the college year shall be permitted to participate in any intercollegiate contest thereafter until he shall have been in attendance six calendar months.

Note.—Attendance during Summer Session is not counted as "attendance" for the purpose of this rule.

Rule 4.—*Migrant Students.*

(a) No person who has participated in any intercollegiate contest or freshman contest† in any branch of sport as a member of the team of any other college* shall be permitted to participate in any intercollegiate contest in the same branch of sport as a member of a team of any Institution in this Conference.

(b) Students who have pursued courses of study at one university or college* but who have not participated in any intercollegiate

† For the purpose of this rule on intercollegiate contest is a contest played by the Varsity or freshman team. This rule does not affect the limit of participation as defined in rule 5.

* *Definition of "College."* The word "college" as used in this code means any educational institution having in attendance at least one hundred male students of college grade and requiring for admission fourteen Carnegie units, or is a member in full standing of the Southern Intercollegiate Athletic Association.

contest, shall be eligible to participate in intercollegiate athletics at another institution, but only when they have satisfied the conditions as set forth in Rule 2—the one-year residence rule.

Rule 5.—*Limit of Participation.* Participation in intercollegiate athletics shall be limited to three years, within a five-year period counting from the time of first matriculation. Participation in any intercollegiate sport in any college year shall constitute one year of athletic participation.

Rule 6.—*Compensation.*

(a) No person who receives any compensation from his institution for services rendered by way of regular instruction shall be allowed to participate in intercollegiate contests.

(b) No person shall be allowed to participate in any intercollegiate contest who receives any gift, remuneration, or pay for his services on a college team.

(c) No person shall be permitted to participate in any intercollegiate contest who has ever used or is using his knowledge of athletics or his athletic or gymnastic skill for gain.

Note.—This rule does not apply to any person who has done work in connection with a playground or a summer camp where the requirements do not call for a man with technical preparation in physical training.

Rule 7.—*Summer Baseball.* No athlete in any Conference Institution shall participate as a member of any summer baseball team without the consent of his Faculty Committee on Athletics; and such a player when given permission to play on such team shall submit at the reopening of the school term to his Faculty Committee a certified statement that he has not received pecuniary compensation therefor.

Rule 8.—No student shall be eligible to participate in intercollegiate contests if he has played on any baseball team which is a member of an organized league which has a schedule of more than three games a week.

To the list of professional teams thus proscribed shall be added all league teams in any State which the Conference Institutions of such State declare professional and from which they debar their own players. In the event that said conference institutions cannot agree on proscribed teams, the executive committee shall have the power to decide the issue and their action shall be final.

Rule 9.—*Assumed Name.* No person shall take part in any intercollegiate contest under an assumed name.

Rule 10.—*Delinquency in Studies.* No student who is found delinquent in his studies by the faculty shall be permitted to participate in any intercollegiate contest.

Rule 11.—*Freshmen Teams.*

Freshman teams shall be composed of members of the freshman class only, who shall not compete as such for more than one year, and who shall be eligible under the general rules, with the exception of the one year rule. For the purpose of this rule a Freshman is a student who enters the Institution from a High School or a Preparatory School.

STUDENT GOVERNMENT

The student body of the University is self-governing. The functions of this government are both disciplinary and constructive. These functions are exercised by the Student Council and the Campus Cabinet, respectively.

THE STUDENT COUNCIL

Julian Russell Allsbrook, *President.*

Ludlow Thomas Rogers, *Secretary.*

William Wardlaw Gwynn	Newsom Pittman Battle
William Emmett Kyle Underwood	Charles Raymond Whitehead
Samuel Murston Cathey.	Charles Augustus Holshauser

The Student Council is composed of eight members, as follows: The presidents of the three upper academic classes, one representative from each of the professional schools, one representative elected from the student body at large, and one representative elected by the other seven members of the Council. The member elected by the Council must be chosen from among those who have served on the Council before. The President of the Student Body is *ex officio* Chairman of the Council, and the President of the Junior Class *ex officio* Secretary.

Student government, in so far as it is disciplinary, is based upon the honor system. No code of rules is laid down to direct a student what to do and what not to do. The only standards are those of morality and gentlemanly conduct. The Student Council is the head of the honor system. It is the concrete expression of the moral University. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines the matter, finds the facts in the case, and decides upon the course to be pursued. If the student is found guilty of conduct unworthy of a University man, he is promptly required to withdraw from the University. Among the offenses demanding withdrawal may be mentioned drunkenness, cheating on examination, and gambling.

THE CAMPUS CABINET

W. H. Holderness, *President.*

W. E. K. Underwood	J. R. Purser, Jr.
J. P. Corbett	J. T. Gregory
W. W. Gwynn	G. V. Ragsdale
J. R. Allsbrook	C. B. Colton
N. C. Cordon	Frances Venable
L. T. Rogers	L. J. Phipps
H. F. Comer	J. A. Williams

The Campus Cabinet is an organization composed of representative students selected as follows:

1. Presidents of the four academic classes.
2. One representative elected by each of the three upper academic classes.
3. One representative elected by each of the professional schools, by the Pan-Hellenic Council and by the Woman's Association.
4. The President of the Student Body.
5. The General Secretary of the Y. M. C. A.
6. The President of the Y. M. C. A.
7. The Editor-in-chief of the *Tar Heel.*
8. The Editor-in-chief of the *Carolina Magazine.*

The object of this organization is to study campus conditions and campus problems and to relate them to the "greater University." It attempts to work out all problems the solution of which would make life of the students more wholesome and more enjoyable. It is not an executive body, mainly, but a suggestive body. It takes up such questions as the social life of the students, the athletic situation as it concerns the entire student body, dormitory improvements, and many other things that it thinks will benefit the students. It is a flexible body and is always ready to discuss and aid any worth while enterprise presented to it.

PUBLIC LECTURES

Louis Graves, *Chairman, Committee on Public Lectures.*

THE JOHN CALVIN McNAIR LECTURES

William Chambers Coker, *Chairman*

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to $500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures "shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God from nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL.D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D.D., LL.D., of Princeton Theological Seminary, New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph.D., M.D., LL.D., of Leland Stanford, Jr., University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D.D., LL.D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

The lectures for 1912 were delivered by President Arthur Twining Hadley, A.M., LL.D., of Yale University. The three lectures on the general subject, Some Tendencies of Modern Philosophic Thought, were:

1. Changed Conceptions of Science.
2. New Views of Ethics and of Politics.
3. The Spiritual Basis of Modern Literature.

The lectures for 1913 were delivered by Professor Francis G. Peabody, A.M., D.D., LL.D., of Harvard University. The three lectures were:

1. The Practicability of the Christian Life.
2. The Christian Life and the Modern Home.
3. The Christian Life and Modern Business.

The lectures for 1914 were delivered by President George Edgar Vincent, Ph.D., LL.D., of the University of Minnesota. The title of the series was The Social Vision, and the lectures were:

1. The Sense of the State.
2. The Larger Selfishness.
3. The Kingdom of God.

The lectures for 1915 were delivered by Professor John Dewey, Ph.D., LL.D., of Columbia University. The three lectures on the general theme, Philosophy and Politics, were:

1. The Division into the Inner and the Outer World.
2. The State and Moral Life.
3. The Philosophy of History.

The lectures for 1916 were delivered by Dean Frederick J. E. Woodbridge, A.M., LL.D., of Columbia University. The title of the series was The Purpose of History, and the three lectures were:

1. From History to Philosophy.
2. The Pluralism of History.
3. The Continuity of History.

The lectures for 1917 were delivered by Professor Hugh Black, M.A., D.D., of Union Theological Seminary. The title of the series was The Great Questions of Life, and the three lectures were:

1. Is God?
2. Has God said?
3. Shall Man Say to God?

No lectures on this foundation were delivered in the years 1918 and 1919.

The lectures for 1920 were delivered by Professor Edwin Grant Conklin, Sc.D., of Princeton University. The title of the series was The Direction of Human Evolution, and the lectures were:

1. The Possibilities of Human Evolution.
2. Evolution and Democracy.
3. Evolution and Religion.

The lectures for 1921 were delivered by Professor Paul Shorey, Ph.D., LL.D., Litt.D., of the University of Chicago. The title of the series was Plato's Relation to the Religious Problem, and the lectures were:

1. Plato and the Irreligion of Pseudo-Science.
2. Plato and Natural Theology.
3. Plato and Ethical Religion.

The lectures for 1922 were delivered by the Rev. Charles Allen Dinsmore, D.D., of Yale University. The general topic was Religious Certitude in an Age of Science, and the lectures were:

1. The Influence of Science upon Religious Thought.
2. The Nature and Truth of Religion.
3. Religious Certitude and Beliefs.

The lectures for 1923 were delivered by Dean Roscoe Pound, Ph.D., LL.D., of the Law School of Harvard University. The general topic was Law and Morals, and the lectures were:

1. Law and Morals: The Historical View.
2. Law and Morals: The Analytical View.
3. Law and Morals: The Philosophical View.

THE WEIL LECTURES

During the years 1914-1915 an unendowed lectureship on American Citizenship was established by the University. The first incumbent was ex-President William Howard Taft, who lectured on "The Presidency: Powers, Duties, Obligations, and Responsibilities." Since that time this foundation, named the Weil Lectures on American Citizenship, has been permanently established through the generosity of the families of Mr. Sol Weil and Mr. Henry Weil, of Goldsboro, N. C.

The first incumbent on the Weil establishment (1915-1916) was Professor George Brinton McClellan, of Princeton University. The title of the series was American Citizenship, and the three lectures were:

1. The Nation.
2. The Law.
3. The Citizen.

The series for 1916-1917 was delivered by Mr. James A. Macdonald, editor of the *Toronto Globe*. The title of the series was The North American Idea, and the lectures were:

1. The North American Idea in the American Republic.
2. The North American Idea in the Canadian Dominion.
3. The North American Idea and America's Internationalism.

There was no series delivered in 1917-1918 owing to war conditions.

The series for 1918-1919 was delivered by Professor Jacob H. Hollander of Johns Hopkins University. The title of the series was American Citizenship and Economic Welfare, and the lectures were:

1. The Weal of the Nation.
2. The Citizen as Producer.
3. The Citizen as Consumer.

The series for 1919-1920 was delivered by the Hon. Robert Goodwyn Rhett, ex-President of the Chamber of Commerce of the United States. The title of the series was American Citizenship, and the lectures were:

1. Social America.
2. Political America.
3. Industrial America.

The series for 1920-1921 was delivered by Professor William Bennett Munro of Harvard University. The title of the series was Personality in Politics, and the lectures were:

1. Personality in City Politics—Some Notable American Mayors.
2. Personality in Politics—American Bosses of the Past Generation.
3. Personality in Reform Politics—Why Reformers so often Fail.

The series for 1921-1922 was delivered by Dr. John Huston Finley, Associate Editor, *New York Times.* The title of the series was National and Planetary Consciousness, and the lectures were:

1. Copernican America.
2. The Televictorian Age.
3. Planetary Consciousness.

The series for 1922-1923 was delivered by Fabian Franklin, Ph.D., LL.D., Publicist, New York City. The title of the series was The Rule of the People, and the lectures were:

1. The Doctrine of Divine Right.
2. The Rule of the People.
3. The Spirit of Liberty.

THE SOUTHERN EXCHANGE LECTURESHIP

In 1914 an exchange lectureship was established by Vanderbilt University, the University of Virginia, the University of South Carolina, and the University of North Carolina. Under the terms of this lectureship each university will send a lecturer to and will be visited by a lecturer from one of the other universities participating in the lecture foundation. The purposes of this lectureship are: to promote scholarship, to present in concrete form recent advances in some special branch of learning, and to bring the institutions concerned into closer relationship through exchange of ideas in regard to all vital problems affecting a modern university.

The exchange lecturer to the University for 1922-1923 was Professor Ivey Foreman Lewis, Department of Biology, The University of Virginia, Professor William Chambers Coker, Dpeartment of Botany, delivering the lectures at the University of South Carolina.

UNIVERSITY SERMONS

Under the auspices of a Faculty Committee, University Sermons are delivered throughout the year in the College Chapel by prominent clergymen.

The sermons for the session 1922-1923, were delivered by:

President Henry Louis Smith, Washington and Lee University, Lexington, Va.

Rt. Rev. Edwin A. Penick, Bishop-Coadjutor, Diocese of North Carolina.

Rev. Dr. Andrew Sledd, Emory University, Ga.

Rev. Dr. Sparks W. Melton, Norfolk, Va.

UNIVERSITY ORGANIZATIONS

THE DIALECTIC LITERARY SOCIETY AND THE GENERAL ASSEMBLY OF THE PHILANTHROPIC LITERARY SOCIETY

The Dialectic and the Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University and they have shown remarkable power in developing character, as well as training the intellect. They offer facilities for practice in debate, oratory, and essay writing; and their members become familiar with parliamentary law and procedure.

In 1919 the Philanthropic Society reorganized itself after the plan of the General Assembly of North Carolina, and is now the General Assembly of the Philanthropic Literary Society, and conducts its meetings as a legislative assembly.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members, including a President of the United States, Cabinet members, Governors, etc. Meetings are held by each society every Saturday evening of the college year, admission being confined to members. Public contests in debate between the two societies are conducted throughout the year, culminating in the annual Commencement debate. There is also held each year a system of intercollegiate debates and oratorical contests.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society (Chapel Hill being regarded as the dividing line). Although membership in these societies is entirely optional, it is earnestly recommended by the Faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self-control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

Alvin Sawyer Wheeler, Ph.D., *President.*

Robert Ervin Coker, Ph.D., *Vice-President.*

James Munsie Bell, Ph.D., *Permanent Secretary.*

HENRY ROLAND TOTTEN, Ph.D., *Recording Secretary and Treasurer.*

WILLIAM CHAMBERS COKER, Ph.D.,
JAMES MUNSIE BELL, Ph.D.,
COLLIER COBB, D.Sc.,
} *Editors of the Journal of the Elisha Mitchell Scientific Society.*

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A *Journal,* which is the official organ of the Society and of the North Carolina Academy of Science, is issued quarterly. The object of the society is to encourage scientific research and to record results of such work, especially those that pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the class-room by hearing readings and discussions of papers resulting from the research work in all the scientific departments of the University, talks by the alumni engaged in scientific research, and discussions of the important scientific discoveries. It gives the students and faculty a broader outlook and sympathy for scientific research in fields other than their own special one, a sympathy which is impossible in the smaller departmental societies.

The *Journal* is more than a bulletin of the scientific laboratories of the University. It contains original papers on scientific subjects by scientific men and research students throughout the Southern States. It also publishes the Proceedings of the Elisha Mitchell Scientific Society and the Proceedings of the North Carolina Academy of Science, as well as abstracts of papers on scientific subjects published elsewhere by members of the faculty and alumni of the University. It is now in its fortieth year. The volumes already issued contain more than five thousand eight hundred pages. By the exchange of the *Journal* with more than three hundred scientific journals and periodicals many thousands of books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

Joseph Gregoire deRoulhac Hamilton, Ph.D., *Permanent Secretary.*

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from Raleigh to Chapel Hill. Under his leadership it became the center of historical work in the State and the medium of many notable contributions to the history of the State. On March 22, 1875, through the activity of Kemp Plummer Battle, LL.D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files, coins, and other objects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation.

THE NORTH CAROLINA CLUB

George Harold Lawrence, A.B., *President.*

Arthur Franklin Raper, *Vice-President.*

Samuel Huntington Hobbs, Jr., A.M., *Secretary and Treasurer.*

Eugene Cunningham Branson, A.M., Litt.D., *Chairman of the Steering Committee.*

Everett Sultan McDaniel, Jr., *Chairman of the Publicity Committee.*

William Elliott White, *Chairman of the Membership Committee.*

The North Carolina Club was organized September 25, 1914, in Gerrard Hall. Its purpose is to review, interpret, and discuss the economic, social, and civic problems of the State. These problems are being explored, county by county, by the county clubs of the University student body. The scope and details of the volunteer work of the county clubs are set forth in The University Extension Bulletin, No. 9, under the title, Home County Club Studies. On alternate Monday evenings throughout the college year the North Carolina Club meets for a discussion of statewide questions. The Club fills a column in the University News Letter every week. The final aim of the county clubs is a brief bulletin upon the economic and social problems of every county in the State. The studies of the North Carolina Club are given to the public in its annual Year-Book.

THE PHILOLOGICAL CLUB

HOWARD RUSSELL HUSE, Ph.B., *President.*

THORNTON SHIRLEY GRAVES, Ph.D., *Vice-President.*

THOMAS JAMES WILSON III, A.B., *Secretary and Treasurer.*

The Philological Club meets on the first Tuesday evening of each month during the college year. Its membership consists of the faculty and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in language and literature and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed.

DER DEUTSCHE VEREIN

ERNST C. METZENTHIN, Ph.D., *Director.*

The Verein was established for the purpose of stimulating interest in German life among the officers and students of the University. Weekly meetings are held throughout the year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, social life, and politics are informally discussed. An effort is made to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

ROBERT WHITE LINKER, *President.*

WALTER WARREN WILSON, *Secretary and Treasurer.*

Le Cercle Français holds weekly meetings at which topics of general interest pertaining to French literature and French life, manners, and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

EL CENTRO HISPANO

Stanley Thomas Ballenger, *President.*
Ramon Stewart Alfonso, *Vice-President.*
Samuel McKee Eddleman, *Secretary and Treasurer.*
Albert Shapiro, Ph.D., *Adviser.*

El Centro Hispano meets on the second and fourth Mondays of each month during the college year. Its membership consists of the instructors in Spanish, members of the community who speak the language, and students of the University who have shown distinction in courses in Spanish. The object of the club is to stimulate interest in the language, literature, and customs of Spain and Hispanic America, to provide its members with an opportunity to hear idiomatic Spanish spoken, and to use the language with more facility.

MUSIC CLUBS

The Music Clubs consist of the Glee Club, the Orchestra, the Band, and the Guitar and Mandolin Club. These organizations are representative of the musical talent of the University and receive their direction from the Department of Music. They furnish music for numerous occasions on the campus, and each year they make concert tours in different parts of North Carolina. Membership in these clubs is gained through competitive try-outs.

MUSICAL ACTIVITIES

A series of free Sunday afternoon concerts is provided by the department of music, the concerts coming on the first Sunday of each month during the school year. These are given by members of the department, by students and student organizations, and by visiting artists.

A series of artist recitals is provided each year by the department of music, some of the world's greatest musicians being brought in this way to the campus.

A community chorus gives programs twice each school year, and is open to members of the faculty and student body and citizens of Chapel Hill.

At least once each year the department of music produces a light opera with cast of principals and chorus taken from the student body and with accompaniment by the University Orchestra. Membership in the casts of these productions is open, through competitive try-outs, to the entire student body.

Wigue and Masque, a student musico-dramatic organization, produces each year an original musical comedy with a caste made up entirely of men. The book and music for this production are written by students and selected in annual competitions each fall, cash prizes being offered. Membership is by election from the castes of the productions; the caste is open to the entire student body through competitive try-outs.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

University of North Carolina Branch

LELAND PRESTON BROWN, *President.*
HAROLD CHARLES KLINGENSCHMITT, *Secretary.*

The aim of the Branch is to stimulate interest in modern problems in the various fields of electrical engineering, to provide a means for students to discuss in public various questions of a technical nature, and to give them an opportunity for practice in thinking on their feet. The Branch meets semi-monthly. The papers consist of original discussions and abstracts of papers presented before the regular Institute meetings. Membership in the Branch is open to all students who are interested in electrical engineering, and all enrolled members receive the regular monthly Proceedings of the Institute.

AMERICAN SOCIETY OF CIVIL ENGINEERS

The William Cain Student Chapter

JOHN NEELEY GILBERT, *President.*
LEROY IRWIN LASSITER, *Vice-President.*
RAYMOND JOYCE ROSENBERGER, *Treasurer.*
WRIGHT MOORE PRICE, *Secretary.*

The purposes of the Chapter are to afford the student in Civil Engineering practice in the preparation and presentation of engineering papers, to give a working knowledge of parliamentary law, to develop the ability to speak extemporaneously, and to provide a contact between students, faculty, and visiting engineers.

The Chapter meets on Friday of each week, and six times during the year social meetings are held, to which are invited successful practising engineers.

The Chapter receives all the publications of the Society and its members are accorded the privilege of attending any of the Society meetings.

Membership is open to all students of the Civil Engineering Department.

THE CAROLINA PLAYMAKERS

Frederick Henry Koch, A.M., *Director.*

Alvin Sawyer Wheeler, Ph.D., *Treasurer.*

George Vernon Denny, S.B., *Manager.*

The Carolina Playmakers is a dramatic organization. It is incorporated under the laws of the State of North Carolina as a non-stock corporation. The members of the corporation are President Chase, Professors Greenlaw, Koch, Henderson, Wheeler, Graham, and Coker, and Messrs. Woollen and Denny.

Its purpose, as set down in the Charter, is: "First, to promote and encourage dramatic art, especially by the production and publishing of plays; Second, to serve as an experimental theatre for the development of plays truly representative of the traditions and present-day life of the people; Third, to extend its influences in the establishment of a native theatre in other communities."

The *Carolina Folk-Plays* are written and produced in the University courses in Dramatic Composition and Production, members of the community of Chapel Hill—students, faculty, and townspeople—assisting. Those who contribute to the writing or producing of the plays constitute the membership of the organization. Any student may participate in any of the various departments of the work.

The Playmakers now have their own Theatre Building on the campus, fully equipped for all manner of experimentation and production.

Each year The Playmakers make three State tours of one week each, one each University quarter.

YOUNG MEN'S CHRISTIAN ASSOCIATION

BOARD OF DIRECTORS

W. D. Moss, *Chairman.*

D. D. Carroll, *Board Treasurer.*

H. W. Chase.
H. W. Odum.
A. H. Patterson.
F. F. Bradshaw.
L. J. Phipps.
J. R. Purser, Jr., *Ex officio.*
E. D. Apple, *Ex officio.*
H. F. Comer, *Ex officio.*

OFFICERS

HARRY F. COMER, *General Secretary.*
W. W. GWYNN, *Assistant Secretary.*
MISS WILLIE AMES, *Office Secretary.*
MISS MILDRED CHERRY, *Stenographer.*
J. R. PURSER, JR., *President.*
W. W. GWYNN, *Vice-President.*
H. R. FULLER, *Recording Secretary.*
E. D. APPLE, *Treasurer.*

The Young Men's Christian Association is an organization of students which seeks by precept and example to encourage right and wholesome Christian living. In this spirit it endeavors to extend a helping and active influence to every sphere of campus activity, athletic, academic, social, and so on.

Not unaware of its essentially religious nature, it strives in every feasible way to make the religion of the campus very real and very genuine; and to uphold the Christian life as the ideal in conduct, thought, and temperament for every man. To those who are so inclined it offers unlimited opportunity for religious service. Through its support of rural Sunday-Schools, its Bible and Missions studies, its religious meetings, its Deputation Teams to High Schools, its Special Lectures and Institutes, its Evangelistic Campaign, and its personal associations it affords every man a medium of expression in service to the Christian cause.

For an additional number it offers opportunity for community and social service. Through its work for new students, the yearly handbook and directory, bureau of employment, exchange of lost and found articles, socials, receptions, and similar activities, many students are enabled to give to the community that measure of useful service which would otherwise remain wholly unexpressed.

The Association has definitely entered upon an expansion period. The number of departments has increased from 16, in 1921-22, to 27 departments and committees at the opening of 1923-24. W. W. Gwynn has been employed as Asssitant Secretary. Miss Willie Ames, of Chapel Hill, has been employed as full-time Office Secretary, this enabling the Secretaries to mix more constantly with the committee chairmen and the student body in general. Miss Mildred Cherry is employed for 5 hours a day as Stenographer. 225 different students are being used on various

committees, and the work has extended itself very greatly into the life of the community. From the physical standpoint, all this expansion focuses upon the plan for a thoroughly modern building within the near future.

DEPARTMENT LEADERS

Bible Study—J. V. McCall.
Blue Ridge and Conventions—Carles A. Holshouser.
Boys' Work—H. D. Farrell, J. E. Calhoun, and H. D. Meyer.
Chapel—H. F. Comer.
Church Relations—Lynn R. Hunt.
Deputation Work—William Hunt.
Evangelism and Recruiting—H. F. Comer.
Finances—Thomas Woodard and Knox Massey.
Freshman Friendship Council—Henry Duls, Edward Scheidt, and William Cocke.
Freshman Letters—Ludlow Rogers and Edward Scheidt.
Information Bureau—Miss Willie Ames.
Life-Work and Vocational Guidance—The Cabinet.
Lost and Found Bureau—Miss Willie Ames.
Ministerial Band—J. Osler Bailey.
Music Department—Thomas Campen.
Personal Work and Morning Watch—John R. Purser, Jr.
Publications—J. M. Sanders and R. W. Linker.
Publicity—Geo. Stephens, Jr., and W. B. Pipkin.
Rural Work—Edwin Lanier and J. R. Allsbrook.
Self-Help Department—F. S. Griffin.
Social Department—Marion Davis and Harvey Andrews.
Social Service Department—W. S. Berryhill.
Speakers Bureau—H. F. Comer.
Volunteer Band—Henry Fuller.
Weekly Religious Meetings—Andrew Milstead.

THE GENERAL ALUMNI ASSOCIATION

WALTER MURPHY, Law '92, Salisbury, *President.*
CHARLES L. WEILL, '07, Greensboro, *First Vice-President.*
ROBERT H. WRIGHT, '97, Greenville, *Second Vice-President.*
DANIEL L. GRANT, '21, Chapel Hill, *Secretary and Treasurer.*

BOARD OF DIRECTORS

North Carolina

J. C. B. EHRINGHAUS, '01, First District, Elizabeth City.
W. L. LONG, '09, Second District, Roanoke Rapids.
LESLIE WEIL, '95, Third District, Goldsboro.
O. J. COFFIN, '09, Fourth District, Raleigh.
BURTON CRAIG, '97, Fifth District, Winston-Salem.
KATHRINE ROBINSON, Law '21, Sixth District, Fayetteville.
ISAAC S. LONDON, '06, Seventh District, Rockingham.
MARY HENDERSON, Law '15, Eighth District, Salisbury.
ROBERT LASSITER, '98, Ninth District, Charlotte.
R. R. WILLIAMS, '02, Tenth District, Asheville.

Out of State

SHEPARD BRYAN, '91, Atlanta, Georgia.
GEO. GORDON BATTLE, '85, New York City.
C. S. CARR, '98, Norfolk, Virginia.
S. E. SHULL, Law '00, Stroudsburg, Pennsylvania.

EXECUTIVE COMMITTEE OF THE ALUMNI CLASS SECRETARIES' BUREAU

W. S. BERNARD, '00, Chapel Hill.
H. M. WAGSTAFF, '99, Chapel Hill.
T. J. WILSON, JR., '94, Chapel Hill.
L. J. PHIPPS, '22, Chapel Hill.
DANIEL L. GRANT, '21, Alumni Secretary, Chapel Hill.

The General Alumni Association of the University of North Carolina is composed of graduates of the University, former students who pursued courses leading to regular degrees, special students, and students of the summer law school. These are designated

as active members. Honorary membership is accorded trustees and ex-trustees of the University, members and ex-members of the faculty, and officers of the University. It has more than 11,000 living members.

The objects of the Association are to "promote the growth and influence of the University; to cultivate the bond of sympathy and mutual helpfulness between the University and its alumni; to make helpful the relation between alumni and students in local communities; to unite the alumni in the advancement of educational pursuits; and to maintain University ideals." This is a worthy and high goal, and a field of infinite expanse lies open in which the sons of the University may labor in realizing their self-set standard.

The officers of the Association are a president, two vice-presidents, and a secretary and treasurer. The general management of the affairs of the Association is entrusted to a Board of Directors consisting of nine members. All the officers and the members of the board are elected by direct ballot—the officers for a term of one year, and the members of the Board for a three-year term. Three are elected each year which provides a continuing body.

The Alumni Class Secretaries' Bureau was formed at a meeting of the Secretaries of 22 classes in a two-part conference in Chapel Hill on October 11th and 12th, 1922, for the purpose of seeing "that proper and uniform facts concerning every University alumnus and class are kept; that the reunions are organized in a way to secure the greatest attendance from the members, and an enjoyable and effective program; to stimulate the work of the secretaries by proper coöperation; to secure a greater unity of action and feeling in the various classes through regular informative communications, by letters, and through *The Alumni Review* and the regular publication of class histories, thereby fostering the work of the local and general associations." Its affairs are administered by an executive committee of five.

A proper coördination of the powers of the Alumni Class Secretaries' Bureau and the Board of Directors of the Association is now being worked out. The former directs the work that is being done through the medium of the class division of the entire group; and the latter that of the territorial division.

A deliberative body known as the General Assembly of the Alumni meets on Alumni Day of each Commencement for the consideration of Alumni affairs, and the installation of officers. It is composed of delegates from the local Associations, and the classes.

For information about the formation of local associations, the duties of class secretaries, and the general association address Daniel L. Grant, Alumni Secretary, Chapel Hill, N. C.

PART THREE—COURSES OF INSTRUCTION UNDERGRADUATE AND GRADUATE

In this section are listed and described all courses offered in the University except those in the professional schools of Law, Medicine, and Pharmacy. For courses in these schools see PART FIVE.

NOTES ON THE METHOD OF NUMBERING COURSES

Courses with a double number are completed in two quarters and in general credit will not be given until both quarters have been completed; for example, Chemistry 1-2. Certain of these courses meet only three times a week and together count as one course; for example, Philosophy 13-14. Courses which meet five or six times a week for two quarters carry a credit of two courses; for example, Economics 1-2.

Courses with three numbers require three quarters to complete. Those meeting five times a week carry a credit of three courses; for example, Chemistry 21-22-23. Those meeting only three times a week carry a credit of one and a half courses; for example, English 13-14-15.

Courses numbered 1-99 are undergraduate courses and may not be counted for graduate credit except by previous arrangement with the Head of the Department concerned and the Dean of the Graduate School.

Courses numbered 100 and above are of strictly graduate grade. An undergraduate student may not register for such a course except by special permission of the instructor in the course and the Head of the Department.

DEPARTMENT OF BOTANY

WILLIAM CHAMBERS COKER, Ph.D., *Kenan Professor of Botany.*

HENRY ROLAND TOTTEN, Ph.D., *Assistant Professor of Botany.*

JOHN NATHANIEL COUCH, A.M., *Instructor in Botany.*

Teaching Fellow in Botany, 1923-1924

JAMES VERNON HARVEY, B.A.

Assistants in Botany, 1923-1924

ETTA PIERSON. ALMA HOLLAND

JOHN WESLEY DEYTON

(For description of Biological Laboratories, see page 35).

Courses for Undergraduates

1. GENERAL BOTANY. Freshman, Sophomore, Junior, and Senior elective.

   An introduction to the structure and classification of plants. Lectures with laboratory and field work. *Six hours a week, fall or spring quarter. Laboratory fee, $4.00.* Credit, 1 course. Professors Coker and Totten, and Messrs. Couch, Deyton, and Harvey.

2. STRUCTURE AND CLASSIFICATION OF SEED PLANTS. Sophomore, Junion, and Senior elective. Prerequisite, Botany 1. Structure and classification of Seed Plants with special attention to agricultural problems. *Five hours a week, spring quarter. Laboratory fee, $4.00.* Credit, 1 course. Professors Coker and Totten.

3. For description of Course 3, see School of Pharmacy.

Courses for Graduates and Advanced Undergraduates

4-5-6. SPECIAL MORPHOLOGY OF THE FUNGI. Prerequisite, Botany 1. Special Morphology of the Fungi with special attention to plant diseases, the culture of the lower fungi, and the identification of mushrooms. Lectures with laboratory and field work. (Credit will be given for any quarter.) These courses may be continued under the same numbers for more than one year as the subject advances, credit being given for each repetition. *Five hours a week, fall, winter, and spring quarters. Laboratory fee, $4.00 a quarter.* Credit, 3 courses. Professor Coker and Mr. Couch.

8. HISTORY OF BOTANY. Prerequisite, two courses in botany.

   Lectures, readings, and reports. This course may be continued for more than one year as the subject advances, credit being given for each repetition. *Three hours a week, winter quarter.* Credit, ½ course. Professor Coker.

Courses Primarily for Graduates

107-108-109. PLANT MORPHOLOGY.

Advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. These courses may be continued under the same numbers for more than one year as the subject

advances, credit being given for each repetition. *Five hours a week, fall, winter, and spring quarters. Laboratory fee, $4.00 a quarter.* Credit, 3 courses. Professor Coker.

110-111-112. GRADUATE RESEARCH.

Original work, with thesis, under the guidance of the instructor. This course may cover most of the work of the student for several years, credit being given each year in accordance with the work done. *Laboratory fee, $4.00 a quarter.* Professor Coker.

DEPARTMENT OF CHEMISTRY

JAMES MUNSIE BELL, Ph.D., *Smith Professor of Chemistry.*

FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., *Kenan Professor of Chemistry.*

ALVIN SAWYER WHEELER, Ph.D., *Professor of Organic Chemistry.*

JAMES TALMAGE DOBBINS, Ph.D., *Associate Professor of Chemistry.*

FRANK CARL VILBRANDT, Ph.D., *Associate Professor of Industrial Chemistry.*

FLOYD HARRIS EDMINSTER, Ph.D., *Assistant Professor of Chemistry.*

HAYWOOD MAURICE TAYLOR, S.M., *Instructor in Chemistry.*

HORACE DOWNS CROCKFORD, S.M., *Instructor in Chemistry.*

FREDERICK PHILIPS BROOKS, S.M., *Instructor in Chemistry.*

Teaching Fellows in Chemistry, 1923-1924

EARL DEWITT JENNINGS, S.B.

CHARLES ROBERT HARRIS, M.S.

WILLIAM EDWARD GILES, A.M.

Assistants in Chemistry, 1923-1924

JOSEPH HARVEY MOURANE, S.B.

RALPH WALTON BOST, A.B.

VANCE BENTON ROLLINS.

CHARLES WOODS FLINTOM.

GEORGE MOSLEY MURPHY.

WYCLIFFE COMMANDEUR QUINBY.

WILLIAM MARION MEBANE.

(For description of Chemical Laboratories, see page 34).

Courses for Undergraduates

1-2. GENERAL DESCRIPTIVE CHEMISTRY.

An introduction to the study of the principal non-metallic and metallic elements and their compounds. Lectures with laboratory work. *Six hours a week, fall and winter and winter and spring quarters. Laboratory fee, $4.00.* Credit, 2 courses. Professors Venable and Edminster, and Messrs. Jennings, Harris, Giles, Bost, Murphy, Flintom, Rollins, and Quinby.

1-2E. GENERAL DESCRIPTIVE CHEMISTRY.

An introduction to the study of the principal non-metallic and metallic elements and their compounds with special emphasis on problems. Required of B.S. students. Lectures with laboratory work. *Six hours a week, fall and winter and winter and spring quarters. Laboratory fee, $4.00 a quarter.* Credit, 2 courses. Professors Bell and Edminster, and Messrs. Jennings, Harris, Giles, Bost, Murphy, Flintom, Rollins, and Quinby.

8. CHEMICAL EQUATIONS. Prerequisite, Chemistry 41-42.

A detailed study of the reactions of the elements and their compounds. Lectures and text-books. *Five hours a week, spring quarter.* Credit, 1 course. Professor Dobbins.

21-22-23. RESEARCH FOR SENIORS. Prerequisite, Chemistry 45-46-47, 61-62, 81-82.

Six hours a week, fall, winter, and spring quarters. Laboratory fee, $10.00 a quarter. Credit, 3 courses. Professors Bell, Venable, Wheeler, Dobbins, and Vilbrandt.

31. QUALITATIVE ANALYSIS. Prerequisite, Chemistry 1-2.

Laboratory work and lectures. *Five hours a week, fall or spring quarter. Laboratory fee, $10.00.* Credit, 1 course. Professor Dobbins, Messrs. Crockford, Mourane, and Mebane.

35. ANALYTICAL CHEMISTRY. Prerequisite, Chemistry 1-2.

A course in anlytical methods gravimetric and volumetric. Open only to students in the S.B. IV, Pre-medical, and Pharmacy courses. *Five hours a week. All quarters. Laboratory fee, $10.00.* Credit, 1 course. Professor Dobbins, Messrs. Crockford, Mourane, and Mebane.

41. ELEMENTARY QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 31.

Gravimetric Analysis. Laboratory work, lectures, and stoichiometric exercises. *Five hours a week, fall quarter. Laboratory fee, $10.00.* Credit, 1 course. Professor Dobbins and Mr. Brooks.

42. ELEMENTARY QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 41.

Volumetric Analysis. Laboratory work, lectures, and stoichiometric exercises. *Five hours a week, winter quarter. Laboratory fee, $10.00.* Credit, 1 course. Professor Dobbins and Mr. Brooks.

47. OPTICAL METHODS OF ANALYSIS. Prerequisite, Chemistry 41-42.

Spectroscopic, Microscopic, and Microchemical Methods. *Five hours a week, spring quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Vilbrandt.

61. ORGANIC CHEMISTRY. Prerequisite, Chemistry 31.

The Aliphatic Series. Required of students in the S.B. I, S.B. IV, and Pre-medical courses. *Six hours a week, spring quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Wheeler and Mr. Taylor.

Courses for Advanced Undergraduates and Graduates

11. INDUSTRIAL CHEMISTRY. Prerequisite, Chemistry 1-2, 41-42, 61-62.

The methods and economics of the inorganic chemical industries; lectures and laboratory work. *Five hours a week, fall quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Vilbrandt.

12. INDUSTRIAL CHEMISTRY. Prerequisite, Chemistry 11.

The methods and economics of the organic chemical industries; lectures and laboratory work. *Five hours a week, winter quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Vilbrandt.

13. CHEMISTRY OF FOODS. Prerequisite, Chemistry 1-2.

Digestion processes, and the composition, preservation, adulteration, and industrial production of foods. *Five hours a week, spring quarter.* Credit, 1 course. Professor Venable.

18. HISTORY OF CHEMISTRY. Prerequisite, Chemistry 61-62, 81-82.

History of Chemistry, with discussion of the development of chemical theories. *Three hours a week, spring quarter.* Credit, ½ course. Professor Venable.

45. TECHNICAL QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 41-42.

Water, Oil, Fuel, and Gas Analysis, and Assaying. *Five hours a week, fall quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Vilbrandt.

46. TECHNICAL QUANTITATIVE ANALYSIS. Prerequisite, Chemistry, 41-42.

Iron, Steel, Cotton Products, Fertilizers, and miscellaneous materials. *Five hours a week, winter quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Vilbrandt.

62. ORGANIC CHEMISTRY. Prerequisite, Chemistry 61.

The Carbocyclic and Heterocyclic Series. *Five hours a week, fall quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Wheeler and Mr. Taylor.

63. IDENTIFICATION OF PURE ORGANIC COMPOUNDS. Prerequisite, Chemistry 62.

Lectures and laboratory. *Five hours a week, spring quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Vilbrandt.

64. CHEMISTRY OF DYESTUFFS. Prerequisite, Chemistry 62.

Lectures and laboratory. *Five hours a week, winter quarter. Laboratory fee, $7.00.* Credit, 1 course. Professor Wheeler and Mr. Taylor.

81. PHYSICAL CHEMISTRY. Prerequisite, Chemistry 41-42.

Study of the properties of solids, liquids, and gases, and of their relation to chemical constitution. *Five hours a week, winter quarter. Laboratory fee, $4.00.* Credit, 1 course. Professor Bell and Mr. Taylor.

82. PHYSICAL CHEMISTRY. Prerequisite, Chemistry 81.

The theory of solutions. *Five hours a week, spring quarter. Laboratory fee, $4.00.* Credit, 1 course. Professor Bell and Mr. Taylor.

83. PHYSICAL CHEMISTRY. Prerequisite, Chemistry 81-82.

The methods of physical chemistry as applied to industrial processes. Lectures and text-books. *Five hours a week, fall quarter.* Credit, 1 course. Professor Bell.

84. PHYSICAL CHEMISTRY. Prerequisite, Chemistry 81-82.

Electrochemistry. Lectures and text-books. *Five hours a week, spring quarter.* Credit, 1 course. Professor Bell.

Courses Primarily for Graduates

114-115-116. ADVANCED TECHNICAL CHEMISTRY. Prerequisite, Chemistry 11-12-13.

Seminar Course: readings and discussions of recent advances in Technical Chemistry. This course extends throughout the year. *Fall, winter, and spring quarters.* Credit, 1½ courses. Professor Vilbrandt.

117-118-119. RESEARCH IN INDUSTRIAL CHEMISTRY.

This course (or 127-128-129 or 177-178-179 or 197-198-199) is intended for applicants for advanced degrees. Laboratory work with frequent conference with the professor and reference to the literature relating to the subject of research. The subject of research must be assigned or approved by the professor. This course extends throughout the year. *Fall, winter, and spring quarters. Laboratory fee, $10.00 a* quarter. Credit, 3 courses. Professor Vilbrandt.

124-125-126. ADVANCED INORGANIC CHEMISTRY. Prerequisite, Chemistry 8.

Seminar Course: readings and discussions of recent advances in inorganic chemistry. This course extends throughout the year. *Fall, winter, and spring quarters.* Credit, 1½ courses. Professor Venable.

127-128-129. RESEARCH IN INORGANIC AND ANALYTICAL CHEMISTRY.

The statements made in regard to course 117-118-119 apply also to this course. *Fall, winter, and spring quarters. Laboratory fee, $10.00 a quarter.* Credit, 3 courses. Professor Venable.

174-175-176. ADVANCED ORGANIC CHEMISTRY. Prerequisite, Chemistry 63 and 64.

Seminar Course: readings and discussions of special chapters in organic chemistry. This course extends throughout the year. *Fall, winter, and spring quarters.* Credit, 1½ courses. Professor Wheeler.

177-178-179. RESEARCH IN ORGANIC CHEMISTRY.

The statements made in regard to course 117-118-119 apply also to this course. *Fall, winter, and spring quarters. Laboratory fee, $10.00 a quarter.* Credit, 3 courses. Professor Wheeler.

194-195-196. ADVANCED PHYSICAL CHEMISTRY. Prerequisite, Chemistry 83 and 84.

Seminar Course: readings and discussions of recent advances in physical chemistry. This course extends throughout the year. *Fall, winter, and spring quarters.* Credit 1½ courses. Professor Bell.

197-198-199. RESEARCH IN PHYSICAL CHEMISTRY.

The statements made in regard to course 117-118-119 apply also to this course. *Fall, winter, and spring quarters. Laboratory fee, $10.00 a quarter.* Credit, 3 courses. Professor Bell.

The Alembic Club meets monthly for the discussion of current literature. The current Journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

DEPARTMENT OF COMPARATIVE LITERATURE

EDWIN GREENLAW, Ph.D., *Kenan Professor of English,* Chairman.

WALTER DALLAM TOY, M.A., *Professor of the Germanic Languages and Literatures.*

GEORGE HOWE, Ph.D., *Professor of the Latin Language and Literature.*

WILLIAM MORTON DEY, Ph.D., *Professor of the Romance Languages and Literatures.*

FREDERICK HENRY KOCH, A.M., *Professor of Dramatic Literature.*

NORMAN FOERSTER, A.M., *Professor of English.*

WILLIAM STANLEY BERNARD, A.M., *Professor of Greek.*

HOWARD RUSSELL HUSE, Ph.B., *Associate Professor of Romance Languages.*

The province of courses in this department is indicated by the following aims: 1. To acquaint students with significant periods

in the development of human culture through the medium of literature considered without regard to national or linguistic bounds. 2. To study, through translations, the chief literary masterpieces other than English, ancient and modern. 3. To gain some acquaintance with the special traits of various nationalities as revealed in their literatures, thus supplementing the study of history and of the various languages, and contributing to a better understanding of international relationships.

Students majoring in Comparative Literature must fulfill the following requirements:

(a) Three courses chosen from the following list, of which course 14 must be one: 14, 15, 16, 31, 32.

(b) Three additional courses in the department.

(c) Two Junior-Senior electives in one of the language and literature departments: Greek, Latin, English, German, Romance.

Knowledge of the original language of the literature concerned is an advantage but is not required in undergraduate courses unless specified in the description of the course. A reading knowledge of at least one language other than English is, however, required in all cases. Graduate courses require a knowledge of the language of the literature studied in the course.

Candidates for honors in Language and Literature will be required to compete with distinction a major in Comparative Literature, with an essay involving the study of at least one literature other than English, and with a reading knowledge of that language.

Courses for Undergraduates

14. GREEK LITERATURE. Junior and Senior elective. Open to Sophomores by permission.

A study of masterpieces of Greek literature in English translation, with special reference to the contribution of Greek civilization to modern thought. *Five hours a week, fall quarter.* Credit, 1 course. Professor Bernard.

15. LATIN LITERATURE. Junior and Senior elective. Open to Sophomores by permission.

A study of masterpieces of Latin literature in English translation, with special reference to the contribution of Roman civilization to modern thought. *Five hours a week, winter quarter.* Credit, 1 course. Professor Howe.

16. EUROPEAN LITERATURE IN THE MEDIEVAL PERIOD. Junior and Senior elective.

A study of the medieval mind as reflected in masterpieces of literature, of the value of these masterpieces as elements in modern culture, and of certain modern versions of medieval story. Material read is selected from the early heroic poetry, such as *Beowulf,* the *Nibelungenlied,* and the sagas; metrical romance, such as the *Song of Roland* and the Arthurian romances in France and England; Malory; Celtic romance; and the poetry of Dante. Given in 1924-1925 and in alternate years. *Five hours a week, spring quarter.* Credit, 1 course. Professor Greenlaw.

31. GERMAN LITERATURE SINCE 1700. Junior and Senior elective.

Lectures will be given on the development of German life and literature from 750 A.D. to the special period embraced in this course, and during the quarter there will be lectures on later literary movements and on the authors whose works are read. The reading will be taken from the works of Klopstock, Lessing, Goethe, Schiller, the Storm and Stress writers, the Romantic School, and a selection of 19th century writers after 1832. In some cases the selection of authors to be read will depend upon the possibility of obtaining reliable English translations. *Five hours a week, winter quarter.* Credit, 1 course. Professor Toy.

32. FRENCH LITERATURE SINCE 1600. Junior and Senior elective.

A survey of French literature since 1600. Lectures on the history of the literature from the Renaissance to the present time, with special reference to the classical period and romanticism. Assigned reading in the history of the literature and the masterpieces of the last three centuries, so far as they can be procured in English translation. *Five hours a week, spring quarter.* Credit, 1 course. Professor Dey.

36. GREEK DRAMATIC LITERATURE.

A course designed to embrace the origin, development, technique, and content of the entire Greek Drama, with emphasis on the tragedy as one interpretation of Greek life and thought as a contribution to world progress. *Five hours a week, spring quarter.* Credit, 1 course. Professor Bernard.

Courses for Graduates and Advanced Undergraduates

51. THE LATIN EPIC.

The history of Latin Epic; detailed study of the *Aeneid.* *Five hours a week, winter quarter.* Credit, 1 course. Professor Howe.

52. THE POETRY OF OVID.

The reading in English of Ovid's complete works with detailed study of the Metamorphoses. *Five hours a week, spring quarter.* Credit, 1 course. Professor Howe.

53. PLATO. Junior and Senior elective.

A course designed to lead the student into Platonic philosophy and literary criticism. *Five hours a week, spring quarter.* Credit, 1 course. Professor Bernard.

56. DANTE.

The *Vita Nuova* and the Divine Comedy; the precursors of Dante, and the poets of the *dolce stil nuovo.* Special studies of Dante's political and social philosophy, with particular emphasis on Dante as a poet and as a guide. *Five hours a week, fall quarter.* Credit, 1 course. Professor Huse.

61. THE RENAISSANCE.

An introduction to the literature of the Renaissance in Europe, with some attention to the history of learning in that period. Given in 1923-1924 and in alternate years. *Five hours a week, spring quarter.* Credit, 1 course. Professor Greenlaw.

66. THE NOVEL IN THE NINETEENTH CENTURY. Sophomore, Junior and Senior elective.

A survey of the development of the English novel during the nineteenth century, with attention to parallel developments in French and Russian fiction. Special studies will be made of Scott, Thackeray, George Eliot, and George Meredith; considerable reading will be required in the work of Balzac, Turgenieff, and Tolstoy. *Five hours a week, spring quarter.* Credit, 1 course. Professor (———).

68. COMPARATIVE DRAMA.

A general survey of the drama and the theatre from Aeschylus to Ibsen. The development of dramatic literature is studied through representative plays of the leading European dramatists. *Five hours a week, winter quarter.* Credit, 1 course. Professor Koch.

69. COMPARATIVE DRAMA.

A brief consideration of the early English drama and a study of the folk tradition in more recent times—especially in Ireland. Particular attention is paid to the Celtic Renaissance—to the rediscovery of the Irish legends, and the work of Yeats, Synge, Lady Gregory, St. John Ervine, and others. Consideration is given to the beginning of a new folk drama in America. Given in 1924-1925 and in alternate years. *Five hours a week, spring quarter.* Credit, 1 course. Professor Koch.

71. THE MODERN DRAMA.

A study of representative plays of recent times, beginning with Ibsen. Special attention is given to the function of the drama in interpreting modern thought and changing social conditions. Given in 1924-25 and in alternate years. *Five hours a week, spring quarter.* Credit, 1 course. Professor Koch.

78. LITERARY CRITICISM.

Through a study of such literary critics as Plato, Aristotle, Horace, Coleridge, Wordsworth, Henry James, and Croce, this course aims to render clear the principles of classical, pseudo-classical, romantic, and realistic art, and to consider the possibility of an absolute criterion for the evaluation of literature. *Five hours a week, fall quarter.* Credit, 1 course. Professor Foerster.

90. THESIS COURSE.

Open only to candidates for honors. Credit, 1 course.

Courses Primarily for Graduates

117. ROMANTICISM IN GERMANY AND ENGLAND.

This course traces the development of German romantic thought and art, and their influence in England. Attention is centered upon the problem of the native and foreign elements in Coleridge, Wordsworth, and the young Carlyle. *Five hours a week, winter quarter.* Credit, 1 course. Professor Foerster.

118. ROMANTICISM IN THE UNITED STATES.

This course studies the influence of British and Continental romanticism upon American writers, and the modification of the romantic tradition by the conditions of our life. Attention is centered upon a single topic of personality, varied from year to year (in 1924-1925, Walt Whitman). *Five hours a week, spring quarter.* Credit, 1 course. Professor Foerster.

DEPARTMENT OF ECONOMICS AND COMMERCE

DUDLEY DEWITT CARROLL, M.A., *Professor of Economics.*

CLAUDIUS TEMPLE MURCHISON, Ph.D., *Professor of Business Economics.*

THOMAS LATIMER KIBLER, Ph.D., *Professor of Economics and Transportation.*

ERLE EWART PEACOCK, M.B.A., *Professor of Accounting.*

WALTER JEFFRIES MATHERLY, M.A., *Professor of Business Administration.*

ERICH WALTER ZIMMERMAN, Ph.D., *Associate Professor of Commerce and Resources.*

EDMUND BROWN, JR., Ph.D., *Associate Professor of Marketing.*

WILLARD EARL ATKINS, A.M., J.D., *Associate Professor of Economics and Business Law.*

CHARLES HENRY FERNALD, A.B., M.B.A., *Assistant Professor of Sales Relations.*

CORYDON PERRY SPRUILL, JR., A.B., B.Litt., *Assistant Professor of Economics.*

WILLIAM BURRUS HARRELL, S.B., *Instructor in Economics.*

Teaching Fellows in Economics and Commerce, 1923-1924

ROLAND BYERLY EUTSLER, S.B.
MAXWELL GALBRAITH PANGLE, A.B.

ECONOMICS

1-2. GENERAL ECONOMICS.

This course is planned to give a general understanding of the organization of our economic life and the fundamental principles underlying it. An anlysis is made of consumption, production, and distribution: of the elements which determine value and price with a brief introduction to money, banking and credit, monopoly, business combinations, transportation, labor problems, and economic reform. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professors Carroll, Kibler, Brown, Atkins, Spruill, and Mr. Harrell.

1-2-3E. GENERAL ECONOMICS.

For student in Engineering only. This course covers the same subjects as Economics 1-2. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professors Carroll and Spruill and Mr. Harrell.

5. ECONOMIC HISTORY.

A survey of the steps by which economic activities have evolved from primitive beginnings into the complicated capitalistic economy of today. Special emphasis on the development of the wage system, the Industrial Revolution, the expansion of markets, the ebb and flow of industrial activity, the relation of industrial development to political policy, as they have manifested themselves in England and the United States. *Five hours a week, fall or spring quarters.* Credit, 1 course. Professor Spruill.

10-11. MONEY AND BANKING. Prerequisite, Economics 1-2.

A general study of the principles, functions, and forms of money, credit, and banking; a special study of the current money, credit, and banking problems. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professor Murchison.

12. BUSINESS CYCLES. Prerequisite, Economics 1-2.

A study of the alternating periods of depression and prosperity. The underlying causes of panics and crises. Fluctuations in prices, trade volume, and physical production. *Five hours a week, spring quarter.* Credit, 1 course. Professor Murchison.

13-14. PUBLIC FINANCE. Prerequisite, Economics 1-2.

A general study of the principles which are involved in public revenues and expenditures, and in the relation of organized society to the economic life of its members; a special study of taxation—local, State, and National. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Spruill.

15. TRANSPORTATION. Prerequisite, Economics 1-2.

A general study, from the historical and critical points of view, of railway transportation in such representative countries as Great Britain, France, Italy, Germany, and the United States; with some consideration of passenger and freight traffic and rates, and the State's relations to railways. *Five hours a week, fall quarter.* Credit, 1 course. Professor Kibler.

20. RISK AND RISK-BEARING. Prerequisite, Economics 1-2.

A study of the risk element in modern industry together with the measures which have been devised to meet it. This course should precede the study of insurance. *Five hours a week, winter quarter.* Credit, 1 course. Professor Atkins.

24. PRINCIPLES OF MARKETING. Prerequisite, Economics 1-2.

This course sets forth the principles underlying general marketing practice. The assignments relate to marketing facilities and services (such as, transportation, warehousing, grading, financing, assembling, and distributing), marketing agencies and organizations, organized exchanges and future trading, and certain problems of competition and price policy. *Five hours a week, fall quarter.* Credit, 1 course. Professor Brown.

26. INTERNATIONAL TRADE: THEORY AND POLICIES. Prerequisites, Commerce A. Economics 1-2.

In this course international trade is viewed from the standpoint of the political economist, emphasizing the social aspects.

Part I. Theory of international trade with special reference to payment balance and foreign exchange.

Part II. Historical study of the past, and critical analysis of the present, foreign commerce of the United States and principal commercial rivals; a survey of our markets and sources of supply.

Part III. Analysis and criticism of the international trade policies of the United States and leading commercial nations. *Five hours a week, fall quarter.* Credit, 1 course. Professor Zimmerman.

30. LABOR PROBLEMS. Prerequisite, Economics 1-2.

A study of labor as a factor in the industrial process; of the wage system and employment problems; of immigration and poverty; of labor organizations, strikes, lockouts, arbitration, factory legislation, and industrial education. *Five hours a week, spring quarter.* Credit, 1 course. Professor Atkins.

40. THEORIES OF ECONOMIC REFORM. Prerequisite, Economics 1-2.

A critical analysis of the leading proposals for reform in the present economic system, including Socialism, Bolshevism, Single Tax, and Industrial Democracy. *Five hours a week, fall or spring quarter.* Credit, 1 course. Professor Carroll.

100a.b.c. ADVANCED ECONOMIC THEORY. Prerequisite, Economics 1-2.

A survey of economic theory from the standpoint of the evolution of modern industrial society. The three courses will not only include a review of the works of the leading economic writers, but will also summarize the principal physical, phychic, and social factors that have shaped economic theory and economic institutions. *Fall, winter, and spring quarters.* Credit, 2½ courses. Professor Kibler.

106a.b.c. ECONOMICS SEMINAR. Prerequisites, Economics 1-2-10-11.

A general introduction to methods of advanced study. Some phase of economic activity is selected for consideration in harmony with the interests of the members of the seminar. Methods of work and content receive equal emphasis. *Fall, winter, and spring quarters.* Credit, 1½ courses. Professor Murchison, Chairman.

COMMERCE

(Courses in Commerce count for credit toward the degree S.B. in Commerce only.)

A. RESOURCES AND INDUSTRIES. Prerequisite, Geology 5.

A geographical, technological, and economic study of resources and commodities together with a brief outline of the most important processes of basic industries.

The classroom work—lecture, recitation and laboratory—is supplemented by weekly moving pictures. Excursions to representative industrial establishments. *Five hours a week, fall, winter, and spring quarters. Laboratory fee, $3.50.* Credit, 1 course. Professor Zimmerman.

1. ACCOUNTING PRINCIPLES (Elementary). Prerequisite or corequisite, Economics 1-2. Commerce 10.

Lectures with laboratory work. Study of the theory of debit and credit, record making, organization of accounts, and presentation of financial and profit and loss statements. Laboratory exercises in accounting problems and technique. *Five hours a week, fall, winter, and spring quarters. Laboratory fee, $3.00.* Credit, 1 course. Professor Peacock and Mr. Harrell.

2. ACCOUNTING PRINCIPLES (Advanced). Prerequisite, Commerce 1.

Lectures with laboratory work. An approach to accounting problems from the business manager's point of view. It consists of a thorough study of corporation accounting, including the organization of the accounting department and its relation to other departments, accounting systems, construction, interpretation, and analysis of accounting statements. The principles of valuation, depreciation, and bonds are also covered. *Five hours a week, fall, winter, and spring quarters. Laboratory fee, $3.00.* Credit, 1 course. Professor Peacock and Mr. Harrell.

3. ADVANCED ACCOUNTING. Prerequisite, Commerce 1-2.

Lectures with laboratory work. Study of accounting problems and forms for special types of business concerns. Accounting for the organization and liquidation of co-partnerships and corporations, for combinations and consolidations, for trustees and receiverships, branch houses, municipalities, and foreign exchange. *Five hours a week, spring quarter. Laboratory fee, $3.00.* Credit, 1 course. Professor Peacock.

4. ACCOUNTING PRACTICE. Prerequisite, Commerce 1 and prerequisite or corequisite, Commerce 2.

A laboratory course—Bookkeeping systems and records for the various industries prevalent in North Carolina are studied and practice sets for each are prepared. A tentative list will include tobacco manufacturing, furniture manufacturing, cotton goods manufacturing, automobile sale agencies and garages, banks in small cities, and municipalities. *Six hours a week, winter quarter. Laboratory fee, $3.00.* Credit, 1 course. Professor Peacock.

5. COST ACCOUNTING. Prerequisite, Commerce 1-2.

Lectures with laboratory work. Methods for collection of data relative to prime costs and a careful analysis of various methods of burden distribution. Application of principles will be made in the laboratory by means of budgets for cost accounting in different classes of enterprise. *Five hours a week, fall quarter. Laboratory fee, $3.00.* Credit, 1 course. Professor Peacock.

6. AUDITING. Prerequisite, Commerce 1-2.

Lectures and problems. Kinds of audits, system of accounts, methods of conducting audits and problems in auditing. *Five hours a week, winter quarter. Laboratory fee, $3.00.* Credit, 1 course. Professor Peacock.

7. INCOME TAX PROCEDURE. Prerequisite, Commerce 1-2.

This course consists of a thorough study of both the Federal and State income tax laws and the problems that arise in the making of the various returns. The preparation of the tax returns and claims for refund and abatement will be undertaken as laboratory exercises. *Three hours a week, spring quarter. Laboratory fee, $2.00.* Credit, ½ course. Professor Peacock.

8. C. P. A. PROBLEMS. Prerequisites, Commerce 1, 2, 3, 5, 6.

This course deals with the questions and problems given by the different states and the American Institute in their C. P. A. examinations. Typical problems are solved, and solutions prepared by the leading accountants of the country are studied. (*Alternates with Commerce 9 and is given in 1923-24*). *Three hours a week, spring quarter.* Credit, ½ course. Professor Peacock.

9. MUNICIPAL ACCOUNTING. Prerequisites, Commerce 1, 2, 3.

Lectures with laboratory work. A study of the organization of a municipality; various accounting records; methods of collecting data, recorded in the books of original entry; the preparation of financial statements, budgets, and budgetary control. A survey will also be made of the system prepared by the Bureau of Municipal Research. Laboratory work will consist of a practice set and an investigation of the systems in use by the municipalities in this vicinity. (*Alternates with Commerce 8 and is given in 1924-25*). *Five hours a week, spring quarter. Laboratory fee, $2.50.* Credit, 1 course. Professor Peacock.

10. BUSINESS ORGANIZATION. Prerequisite, Economics 1-2.

The types and methods of business organization with emphasis on the corporation, its nature, development, and operation. The external relations of a business organization and the internal coördination of the factors in production with a view to the establishment of effective control and definite responsibility for results. *Five hours a week, fall quarter.* Credit, 1 course. Professor Matherly.

11. INDUSTRIAL MANAGEMENT. Prerequisite, Economics 1-2.

This course covers the problems involved in the construction, equipment, and internal administration of an industrial enterprise. The location of plant; adaptation of building to processes; routing of work; types of specialization and methods of coördinating workers and departments; the delegation of authority and relation of responsibility to authority; the development and maintenance of standards; methods of purchasing, storing, and checking up materials; the determination and recording of costs; the handling of labor. *Five hours hours a week, winter quarter.* Credit, 1 course. Professor Matherly.

12. CORPORATION FINANCE. Prerequisite, Economics 1-2.

Methods of financing business enterprise, the principles governing the issuance and proportion of the various classes of securities issued by a corporation; the conditions which lead to the issuance of particular forms of securities, the organization of subsidiaries, methods of financing mergers, combinations and consolidations; amortization of debts; reorganizations; intercorporate relations. The preparation of securities with relation to the market. *Five hours a week, spring quarter.* Credit, 1 course. Professor Matherly.

10-11-12. BUSINESS ADMINISTRATION. For Students in the School of Engineering. Prerequisite, Economics 1-2.

The elements of business organization with emphasis on the corporation, its nature, its promotion, its financing, and its operation. Internal organization with special reference to methods of control, managerial accounting, cost analysis, financing of current operations, valuation and methods of appraisal, depreciation, sinking funds, and the interpretation of financial statements. The economics of locating

and managing industrial plants, the handling of the labor factor through specialized personnel administration and the relations existing between consumers and producers. Open only to engineering students. *Three hours a week, fall, winter, and spring quarters.* Professor Matherly.

14. EMPLOYMENT MANAGEMENT. Prerequisite, Economics 1-2.

A critical study of the methods of hiring and handling employees in the various lines of industry. The supply, selection, training, promotion, transfer, and discharge of employees; the computation and significance of labor turnover; housing, educational, and recreational facilities; the functions of an employment department with reference to efficiency and the maintenance of good will between employees and employers. *Three hours a week, spring quarter.* Credit, ½ course. Professor Matherly.

20. SALESMANSHIP. Prerequisites or corequisites, Economics 1-2, Psychology 1-2.

This course will include a careful analysis of the psychology of selling; the qualifications of a good salesman, and their development; the relative value of suggestion, persuasion, and argument in securing decision; the scientific analysis of a sale—the preapproach, the approach, the demonstration and consummation. Typical problems in selling at retail and wholesale and in marketing various types of specialties are presented. *Five hours a week, fall and spring quarters. Laboratory fee, $1.00.* Credit, 1 course. Professor Fernald.

21. SALES MANAGEMENT. Prerequisite, Commerce 20. Recommended as corequisite, Commerce 32 and Economics 12.

This course follows the course in Salesmanship but goes beyond and considers the organization and operation of a sales department. Some of the subjects studied are: the functions of a sales manager; analysis of the goods, the market, and the prospective customers; the planning and management of selling campaigns; sales equipment, records, tests, and relative costs; selecting, training, organizing, supervising, and compensating salesmen. *Five hours a week, winter quarter. Laboratory fee, $1.00.* Credit, 1 course. Professor Fernald.

22. ADVERTISING. Prerequisites or corequisites, Economics 1-2, Psychology 1-2.

The course consists of a study of the psychological basis of advertising, the types of advertising and their adaptation to the various lines of business, the relative value of the various advertising media, the mechanism of an advertisement, and methods of testing effectiveness. Attention is also given to the work of planning and executing an advertising campaign and checking up the results. Practical problems are a part of the course. *Five hours a week, fall and spring quarters. Laboratory fee, $1.00.* Credit, 1 course. Professor Fernald.

23. MERCHANDISING. Prerequisite, Economics 1-2.

The retailer is the last step in the system of merchandise distribution. His problems are many and because of his position in the field of business a study of his organization, functions, and methods is important. The preparation and maintenance of stock records, the organization and management of sales forces, and the determination and execution of credit and price policies are subjects which are taken up and discussed. Problems form an important part of this course. *Five hours a week, winter quarter. Laboratory fee, $1.00.* Credit, 1 course. Professor Fernald.

24. CREDITS AND COLLECTIONS. Prerequisite, Economics 1-2.

A study of the position of credit in modern industry and its relation to the extension of trade is combined with an analysis of the elements which enter into the determination of credit risks. Consideration is also given to the methods by which credit is extended, the standardization of the forms of credit, and the means by which collections may be effected. Some attention is given to the work of collection departments and agencies, and adjustment methods. *Three hours a week, spring quarter.* Credit, ½ course. Professor Fernald.

30. TYPES OF BANKING. Prerequisite, Economics 10-11.

A comparative study of specialized types of banking institutions,—their organization, methods, functions, and relationship to the financial organization of society in general. The course will include trust companies, investment banks, commercial paper houses, commercial discount companies, savings banks, and the various classes of agricultural credit banks. (*Alternates with Foreign Exchange. Given in 1923-24*). *Three hours a week, spring quarter.* Credit, ½ course. Professor Murchison.

31. BANKING PRACTICE. Prerequisite, Economics 10-11.

Organization and management of a commercial bank. Duties and responsibilities of different departments. Bank accounting. Handling of credit instruments, checks, drafts, acceptances, bills of exchange. Critical examination of present methods and standards. *Three hours a week, spring quarter.* Credit, ½ course. Professor Murchison.

32. BUSINESS STATISTICS. Prerequisite, Economics 1-2.

Collection, classification, and presentation of business data. Construction of graphs and diagrams. Study of index numbers. How to make a survey of a given business unit, and of business conditions generally. Each student is required to work out a problem involving simple research methods. *Five hours a week, spring quarter.* Credit, 1 course. Professor Brown.

35. FOREIGN EXCHANGE. Prerequisites, Economics 1-2-10-11.

A study of international banking operations; the credit instruments used in financing trade between nations; the forces determining rates

of exchange. (*Alternates with Types of Banking. Given in 1924-25*). *Three hours a week, spring quarter.* Credit, ½ course. Professor Murchison.

36. INVESTMENTS. Prerequisite, Economics 1-2.

A study of the various forms of investments with reference to their suitability for the different types of investors; the money market, its nature and the financial factors which influence the price movements of securities; elements of sound investment and methods of computing net earnings, amortization, rights, and convertibles. The aim will be to train the student to act efficiently in a financial capacity either as a borrower or lender, as investor or trustee, or as fiscal agent of a corporation. *Five hours a week, winter quarter. Laboratory fee, $1.00.* Credit, 1 course. Professor Matherly.

38. INSURANCE. Prerequisite, Economics 1-2.

A general survey of the principles and methods of property, casualty, and life insurance; a special study of life insurance. *Five hours a week, spring quarter.* Credit, 1 course. Professor Matherly.

41. MARKETING PRACTICE. Prerequisite, Economics 1-2-24.

This course covers essential technique in the marketing of specific commodities as well as a development of the principles followed in practice. Each of the more important commodities or groups of commodities is discussed from the marketing standpoint, and the technical marketing operations on organized exchanges and in various types of business organizations are examined. *Five hours a week, winter quarter.* Credit, 1 course. Professor Brown.

42. MARKETING PROBLEMS. Prerequisite, Commerce A, 41.

A seminar course for students who have done satisfactory work in the general course in Marketing. Each member of the class will be required to make an extensive survey of, and prepare a written report on, a marketing problem of current interest. *Three hours a week, spring quarter.* Credit, ½ course. Professor Brown.

46. FOREIGN TRADE PRACTICE. Prerequisite, Economics 26.

This course treats of foreign trade as a business profession and serves to prepare for entrance into the field; emphasis throughout is on practical problems.

Part I. The organization of Foreign Trade: Export departments, middlemen and their functions; coöperation.

Part II. Methods: Direct versus indirect exporting; export campaigns; sales policies.

Part III. Foreign Market Analysis.

Part IV. Paper work and technical procedure in exporting and importing including foreign trade financing. *Five hours a week, winter quarter.* Credit, 1 course. Professor Zimmerman.

47. COMMERCIAL COMMODITIES. Prerequisite, Commerce A, Economics 1-2.

A study of world commerce in staple commodities such as wheat, cotton, wool, rubber, coal, tobacco, etc., and some selected specialties. Foreign market analysis with special reference to adjacent countries, South America and the Orient. Foreign Trade Principles and Policies should precede this course. *Five hours a week, spring quarter.* Credit, 1 course. Professor Zimmerman.

50. TRAFFICE PROBLEMS. Prerequisite, Economics 15.

A study of current, technical problems in the field of transportation and traffic management. *Three hours a week, winter quarter.* Credit, ½ course. Professor Kibler.

51. OCEAN SHIPPING. Prerequisite, Economics 15.

A study of the elements of water transportation, trade routes, ports and terminal facilities, vessel types, ship operation and management, ocean freight service and rates, marine insurance. The problems of our merchant marine and national policies affecting it are also discussed. *Three hours a week, spring quarter.* Credit, ½ course. Professor Zimmerman.

60-61. BUSINESS LAW. Prerequisite, Economics 1-2.

The aim of the course is to give the student an understanding of the main principles of law which govern in the daily conduct of business. The topics discussed are: Contracts, agencies, negotiable instruments, sales, bailments, corporations, partnerships, and bankruptcy. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Atkins.

62. GOVERNMENT AND BUSINESS. Prerequisites, Economics 1-2, Government 1-2, Commerce 60-61.

A study of the evolution of governmental policy towards business, with a critical examination of current governmental regulation and supervision of industry and trade. Some attention is given to the services which modern governments undertake to render to the business life of their citizens and the agencies developed for this purpose. *Three hours a week, spring quarter.* Credit, ½ course. Professor Atkins.

106a.b.c. COMMERCE SEMINAR.

A general introduction to methods of advanced study. Some phase of business activity is selected for consideration in harmony with the interests of the members of the seminar. Methods of work and content receive about equal emphasis. *Fall, winter, and spring quarters.* Credit, 1½ courses. Professor Murchison, Chairman.

141. SEMINAR.

Individual research in a special field under direction of a member of the faculty.

DEPARMENT OF EDUCATION

*MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

NATHAN WILSON WALKER, A.B., Ed.M., *Professor of Secondary Education.*

EDGAR WALLACE KNIGHT, Ph.D., *Professor of Rural Education.*

MARION REX TRABUE, Ph.D., *Professor of Educational Administration.*

ARTHUR MELVILLE JORDAN, Ph.D., *Professor of Educational Psychology.*

ESEK RAY MOSHER, B.A., Ed.D., *Professor of Education.*

Teaching Fellow in Education, 1923-1924

DAVID HEZEKIAH BRIGGS, A.B.

EDUCATION

1. FUNDAMENTALS OF EDUCATION. Sophomore course. Required of all students in the School of Education who do not elect Psychology 1-2.

   Education is viewed in this course as a series of changes in individual pupils. The elementary principles of educational psychology will be illustrated and studied briefly through assigned readings, experiments, and discussions. *Five hours a week, all quarters.* Credit, 1 course. Professor Jordan.

2. PRINCIPLES OF EDUCATION. Sophomore course.

   This course is introduced to give the student a general introduction to the field of education. It has two main objectives: first, to give information about the school as an institution in modern society; second, to indicate concretely some of the problems of the school and to acquaint the student with the modern scientific approach to such problems. It is designed for any student whether he intends to be a teacher or not. Lectures, readings, discussions, and reports. *Five hours a week, spring quarter.* Credit, 1 course. Professor Walker.

20. EDUCATIONAL PSYCHOLOGY. Prerequisite, Education 1 or Psychology 1-2.

    To consider critically different topics, such as original nature of man, heredity versus environment, kinds of learning and factors influencing learning, individual differences, mental hygiene, mental measurement. Texts and lectures. *Five hours a week, fall and winter quarters.* Credit, 1 course. Professor Jordan.

26. PUBLIC SCHOOL EDUCATION IN THE SOUTH.

    This course gives a historical survey of public school education in Southern States with especial attention to its development in organ-

* Absent on leave, 1923-1924.

ization, administration, and supervision since 1876. Present-day questions in rural education are studied in the light of their historical development, and attention is given to the educational reorganizations needed for the proper solution of the new rural life problems. Text-book, lectures, investigations, and reports. *Five hours a week, fall or winter quarter.* Credit, 1 course. Professor Knight.

31. RURAL SCHOOL ORGANIZATION AND ADMINISTRATION.

A course planned to meet the needs of students preparing to become rural school teachers, principals, supervisors, and superintendents. It gives consideration to the organization, administration, and supervision of rural school education in the United States, with especial emphasis on the present conditions in the South. The county as the unit of administration and support, federal aid and a national program for rural educational work, the application of the principles, agencies, and methods of supervision to the rural school will be studied. Text-books, lectures, special investigations, and reports. *Five hours a week, fall quarter.* Credit, 1 course. Professor Knight.

36. HISTORIC FOUNDATIONS OF MODERN EDUCATION. Junior and Senior elective.

This course traces the development of some of the more important educational problems of modern times as they have been affected by the social and political facts of history, by the contributions of the leading educational theorists, and by institutional practice. It deals with the growth of national systems of education and especially with the extension of popular education in the United States. Text-books, lectures, investigations, and reports. *Five hours a week, winter quarter.* Credit, 1 course. Professor Knight.

37. PUBLIC EDUCATION IN THE UNITED STATES. Junior and Senior elective.

The purpose of this course is to present the evolution of the educational practices and institutions of the United States. The elementary school, the secondary school, and the institutions of higher learning will be traced through: (a) The period of transplanting of European institutions; (b) the period of modifications of institutional life to meet new conditions; and (c) the period of development of an educational system of free common schools, high schools, state universities, and technical schools, in harmony with the political and social ideals and institutions of America. Text-book, lectures, investigations, and reports. *Five hours a week, spring quarter.* Credit, 1 course. Professor Knight.

42. THE ELEMENTARY SCHOOL PRINCIPALSHIP. Graduate or Advanced Undergraduate.

This course considers the duties, qualifications, and activities of the principal of an elementary school. Text-book, assigned readings, and special reports. *Five hours a week, spring quarter.* Credit, 1 course. Professor Trabue.

43. ELEMENTS OF STATISTICAL METHODS. Prerequisite, Education 1 or Psychology 1-2.

The first meetings in this course will consider various methods of collecting data for educational, psychological, social, and economic investigations. The interpretation of data by graphic and mathematical devices, will be taught chiefly by examples. Numbering, tabulation, the calculation of averages and variabilities, the transmutation of measures, and simple correlations will be included. Students will be required to plan experiments and statistical investigations for the solution of problems in their own fields of interest. Readings, demonstrations, problems, reports, and critical discussion. *Five hours a week, winter quarter.* Credit, 1 course. Professors Trabue and Jordan.

46. CLASSROOM MANAGEMENT. Advanced Undergraduates and Graduates.

A course for prospective teachers on the organization and direction of activities in the classroom as distinguished from the administration of an entire school. Class routine, lesson planning, conduct of the recitation, and extra-curricular activities will be included. Text-book, special readings, observations, and reports. *Five hours a week, winter quarter.* Credit, 1 course. Professor Trabue.

51. PRINCIPLES OF SECONDARY EDUCATION. Required of Juniors in School of Education. Junior and Senior elective.

A study of the American high school, its evolution, organizaiton, administration, functions, and problems. Special emphasis will be laid on the public high school in North Carolina. This course is designed especially to meet the needs of those students who are looking toward principalships in small high schools. Text-books, lectures, assigned readings. *The Principles of Secondary Education* by Inglis will be used as the basis of this course.

Students who intend to make applications for the High School Teacher's certificate are required to complete satisfactorily Education 51, 52, and at least two or four other courses, the number depending upon the class of certificate for which the applicant intends to apply. *Five hours a week, fall or winter quarter.* Credit, 1 course. Professor Walker.

52. GENERAL METHODS IN SECONDARY EDUCATION. Required of Juniors in the School of Education. Junior and Senior elective. The course deals with a general survey of the nature of the secondary school pupil and of the nature of the subject matter taught in secondary schools; a study of the laws of learning which underlie and determine the conduct of the recitation and the management of the class; tests, examinations, and scales are also taken up and discussed in some detail. The first half of this course is based upon Colvin's *Introduction to High School Teaching;* the second half, upon Parker's *Methods of Teaching in High Schools. Five hours a week, winter or spring quarter.* Credit, 1 course. Professor Walker.

55. SOCIAL POLICY AND EDUCATION. Senior or Graduate.

Fundamental problems in the social and ethical theory of education. Lectures, prescribed readings, essays, and reports.. This course deals with problems of social progress from the standpoint of education, attempts to define a social policy for education, and discusses the vital educational issues involved in that policy. *Five hours a week, fall quarter.* Credit, 1 course. Professor Walker.

56. SUPERVISION AND MEASUREMENTS IN SECONDARY EDUCATION. Senior or Graduate.

Standard tests for measuring the results of secondary school instruction will be determined and discussed. An effort will be made to give students some familiarity with the methods and scales. *Five hours a week, spring quarter.* Professor Jordan.

62. TESTS AND MEASUREMENTS IN ELEMENTARY EDUCATION. Senior or Graduate.

Methods of measuring and improving the results of instruction in the elementary school. As much use as possible will be made of actual measured results. *Five hours a week, spring quarter.* Credit, 1 course. Professor Jordan.

64. MENTAL MEASUREMENTS. Junior and Senior elective. Prerequisite, Education 1 or Psychology 1-2.

A study of mental tests both individual and group. The origin of the tests will be first considered followed by a comparative study of the various types of group and individual tests. There will be ample opportunity offered for the actual administration of the tests and the interpretation of the results. *Five hours a week, spring quarter,* Credit, 1 course. Professor Jordan.

101. PROBLEMS IN SECONDARY EDUCATION. Graduate.

This course is intended for advanced students and is primarily a course in investigation. To be admitted to it, a student must have pursued other courses in secondary education. Students who have not taken Education 51 may be admitted only with special permission of the instructor. At the beginning of the course each student is required to select some one problem for special investigation. The problem for investigation may be chosen by the student but must be subject to the approval of the instructor both as to field and method. A thesis will be required of each student. Throughout the year regular class discussions will be held on various problems in secondary education and assigned readings will be required. *Two hours a week, fall, winter, and spring quarters.* Credit, ½, 1, or 1½ courses. Professor Walker.

103. PROBLEMS IN EDUCATIONAL ADMINISTRATION. Graduate.

A graduate course offering opportunity for intensive study and research on selected problems in the field of educational administration. The problems will be selected by the class each year, making it pos-

sible for the student to take this course more than once. Prerequisites: Education 40 and 41, or their equivalent. *Two hours a week, fall, winter, and spring quarters.* Credit, ½, 1, or 1½ courses. Professor Trabue.

104. PROBLEMS IN EDUCATIONAL MEASUREMENTS. Graduate.
Students who wish to specialize in educational measurements may take this course more than once if desired, for the problems considered will differ from year to year. Prerequisite: Education 62 or 56. *Two hours a week, fall, winter, and spring quarters.* Credit, ½, 1, or 1½ courses. Professor Trabue.

110. PROBLEMS IN EDUCATIONAL PSYCHOLOGY. Graduate.
Prerequisites: Education 1 or Psychology 1-2, and preferably one other course in Educational Psychology.
A graduate course treating intensively of the fundamental facts of educational psychology. This course is designed for those who intend to major in educational psychology and for all those who wish a thorough grounding in the psychological principles of Education. *Two hours a week, fall, winter, and spring quarters.* Credit, ½, 1, or 1½ courses. Professor Jordan.

126. FOUNDATIONS OF EDUCATION IN THE SOUTH. Graduate.
This is a research course in modern educational practices and institutions and is open only to those advanced students who have had Education 26, or Education 36, or its equivalent. Various educational agencies will be studied through investigations, reports, and conferences. *Two hours a week, fall, winter, and spring quarters.* Credit, 1 course. Professor Knight.

140. SEMINAR IN EDUCATION. Thesis Course.
This is a course of strictly graduate grade in which there will be taken up such work as is necessary for each student in connection with the writing of his degree thesis. It is intended for those students whose graduate major is in Education, but students whose thesis topics are closely related to Education are invited to attend and to take part in the discussions. The class will meet for two hours each week through the year. *Two hours a week.* Professors in The School of Education.

DEPARTMENT OF ENGINEERING

GUSTAVE MAURICE BRAUNE, C.E., *Professor of Civil Engineering.*
*PARKER HAYWARD DAGGETT, S.B., *Professor of Electrical Engineering.*
JOHN EMERY LEAR, E. E., *Professor of Electrical Engineering.*
THOMAS FELIX HICKERSON, A.M., S.B., *Professor of Civil Engineering.*

* Absent on leave on the Kenan Foundation, 1923-1924.

THORNDIKE SAVILLE, A.B., C.E., *Associate Professor of Hydraulic and Sanitary Engineering.*

HAROLD FREDERICK JANDA, C.E., *Associate Professor of Highway Engineering.*

ELMER GEORGE HOEFER, M.E., *Associate Professor of Mechanical Engineering.*

ALBRECHT NAETER, M.S., *Associate Professor of Electrical Engineering.*

GEORGE WALLACE SMITH, S.B., *Instructor in Engineering.*

RALPH MCCOY TRIMBLE, C.E., *Instructor in Engineering.*

PAUL MILTON GRAY, S.B., *Instructor in Electrical Engineering.*

OSCAR EUGENE MARTIN, *Instructor in Engineering.*

Teaching Fellow in Civil Engineering, 1923-1924

JULIAN HENRY WULBERN, B.S.

Except as noted below (courses 1-2 Drawing and Engineering 37C, 38C, 50abc, and 70C) courses in Engineering are open to students in Engineering only.

1abc. MECHANICAL DRAWING AND DESCRIPTIVE GEOMETRY. Lettering and use of drawing instruments. Descriptive Geometry, covering fundamental problems of the point, line, and plane and their application to problems of the intersection and development of surfaces. Problems in isometric and perspective projections. *Six hours a week, fall, winter, and spring quarters.* Mr. Smith.

1-2. DRAWING. For students in the Schools of Commerce and Applied Science only.

This course is designed to help the student interpret and read working drawings. It embodies lettering, the use of drawing instruments, the elementary principles of mechanical drawing, and the reading of typical completed drawings. *Four hours a week, fall and winter quarters.* Credit, ⅔ course. Mr. Smith.

2s. MECHANISM AND ENGINEERING DRAWING. Prerequisite, Engineering 1abc.

For Electrical and Mechanical Engineers.

The relative motions of machine parts, including a study of linkages, cams, gears, belts, gear trains, and other mechanisms. Coördinated with this study, the principles of mechanics and empirical methods are applied to the design of machine elements. *Twelve hours a week, summer term.* Professors Hoefer and Janda.

For Civil Engineers.

A course consisting of topographical drawing, mapping of boundry surveys, graphical determination of areas, plans and profiles of road survey, and other drawings of a similar nature. This course is in connection and parallel with Engineering 23s. *Six hours a week, summer term.* Professors Hoefer and Janda.

3abc. ELEMENTARY MECHANICS.

The basic principles of statics and an elementary course in strength of materials, covering conditions of equilibrium, force and funicular polygons, center of gravity, friction, beams, and jointed structures. This course correlates with first year Mathematics and Drawing. *Three hours a week, fall, winter, and spring quarters.* Professors Braune, Hickerson, Janda, and Mr. Trimble.

4abc. MECHANICS. Prerequisites, Engineering 3abc and Mathematics 1-2-3E.

An elementary course in statics, kinematics, and kinetics. This course correlates with Sophomore Mathematics. *Two hours a week, fall, winter, and spring quarters.* Professors Hickerson and Saville.

5abc. APPLIED MECHANICS. Prerequisites, Engineering 3abc and Mathematics 4-5-6E.

A course in mechanics comprising statics, kinematics, and kinetics. The fundamental principles governing the strength and stiffness of beams, columns, truss members, shafting, and various kinds of riveted work. *Four hours a week, fall, winter, and spring quarters.* Professor Hickerson.

6abc. MATERIALS OF ENGINEERING.

Constitution, physical properties, and tests of the important materials used in engineering construction, such as wood, cement, stone, iron, steel, etc., metallurgy of iron and steel and the more important alloys. *Four hours a week, fall, winter, and spring quarters. Laboratory fee, $2.00 a quarter.* Professor Janda and Mr. Trimble.

7c. INSPECTION TRIPS.

The freshmen students are given an opportunity to become familiar with various types of engineering works by weekly inspection trips during the spring quarter. One afternoon a week is scheduled for inspection trips under the supervision of an engineering instructor, and a second afternoon is devoted to writing a report of the trip under the supervision of the English instructor. *Six hours a week, spring quarter.* Professor Janda, Chairman, and Members of the Engineering staff.

11abc. CEMENT LABORATORY.

Laboratory tests of cement and concrete and analyses of concrete materials. *Three hours a week, fall, winter, and spring quarters. Laboratory fee, $2.00 for winter and spring quarters.* Professor Janda.

14abc. STRUCTURES. Prerequisite, Engineering 5abc.

Graphical and analytical determination of stresses occurring in engineering structures, such as roofs, bridges, retaining walls, etc. The design of simple structures in steel and timber. *Three hours a week, fall, winter, and spring quarters.* Professor Braune.

15abc. ENGINEERING DESIGN.

Application of principles in course 14 to specific problems in the designs of roofs, bridges, retaining walls, water towers, and other structures. *Six hours a week, fall and spring quarters, three hours a week, winter quarter.* Professor Braune.

16c. PLANE TABLE SURVEYING AND MAPPING.

Preparation and interpretation of topographical maps. Lectures and field work. *Four hours a week, spring quarter. Laboratory fee, $2.00.* Professor Saville.

20c. ELEMENTS OF STRUCTURAL ENGINEERING. Prerequisite, Engineering 5abc.

A unified course in which are given the fundamentals of design in steel, reinforced concrete, and timber. This course is arranged for electrical engineering students. *Six hours a week, spring quarter.* Professor Braune.

22ac. FIELD WORK IN SURVEYING. Prerequisite, Mathematics 1-2-3E.

Practice in the use and adjustments of tape, level, transit, plane table, etc. The making and reading of maps; Meridian and latitude determination. *Three hours a week, fall and spring quarters. Laboratory fee, $2.00 a quarter.* Mr. Trimble.

23s. RAILWAY AND HIGHWAY SURVEYING.—SUMMER ENGINEERING CAMP. Prerequisite, Engineering 22a.

Instruction in Plane, Railway, and Highway Surveying will be given during eight weeks of the summer term following the Sophomore year. The course includes the following subjects: I. Chaining; differential, profile, and cross section levelling; plane-table, transit, and stadia topographic surveys; solar and stellar observations for the determination of meridian and latitude; triangulation including base line measurement; measurement of stream discharge; hydrographic surveying.

II. Simple, compound, reversed, spiral, and vertical curves; frogs and turnouts; reconnaissance survey; preliminary survey; paper location; final location; mass diagram and earthwork computation; slope-staking; estimate of quantities and cost. *Forty hours a week, summer term. Laboratory fee, $10.00.* Professor Janda.

24abc. REINFORCED CONCRETE. Prerequisite, Engineering 5abc.

The development of the principles involved in the design of slabs, beams, girders, columns, and simple structures. *Two hours a week, fall, winter, and spring quarters.* Professor Hickerson.

25abc. ENGINEERING DESIGN.

Application of principles in course 24 to specific problems in the design of reinforced concrete and masonry structures. *Three hours a week, fall, winter, and spring quarters.* Professor Hickerson.

30c. WATER POWER AND DRAINAGE ENGINEERING. Prerequisite, Engineering 32bc.

Preliminary studies of rainfall, run-off, and storage; characteristics of reaction and impulse wheels; dam designs; general drainage problems. *Six hours a week, spring quarter.* Professor Saville.

32bc. HYDRAULICS. Prerequisite, Mathematics 4-5-6E.

The principles of flow of water through orifices, weirs, tubes, nozzles, pipes, and open channels as applied to measurement of water to hydraulic engineering. The fundamental principles of impulse wheels, reaction turbines, and centrifugal pumps. *Six hours a week, winter and spring quarters. Laboratory fee, $2.00 a quarter.* Professor Saville and Mr. Trimble.

34abc. HYDRAULIC AND SANITARY ENGINEERING. Prerequisite, Engineering 32bc.

The design, construction, and operation of water supply and sewerage systems as applied to municipalities and rural communities. *Three hours a week, fall, winter, and spring quarters.* Professor Saville.

35abc. ENGINEERING DESIGN.

Application of principles in course 34 to specific problems in the general layout of simple projects for water works and sewerage. Routine tests of water and sewage. *Three hours a week, fall and spring quarters, six hours a week, winter quarter. Laboratory fee, $2.00 a quarter.* Professor Saville.

36ab. WATER AND SEWAGE LABORATORY.

A brief course of lectures and laboratory designed to fit men to carry on both routine and investigational laboratory work in water, sewage, and milk analysis. A brief history of the development of modern bacteriology and public health is given, followed by laboratory work in the bacteriological and chemical study of water supply, stream pollution, sewage treatment, milk control, and malaria prevention. The public health aspect is emphasized. Elective for Senior and Graduate Students. *1 hour lecture, 3 hours laboratory a week. Fall and winter quarters.* Professor Saville.

37C. STREETS, HIGHWAYS, AND CITY PLANNING.

A brief course for students in the School of Commerce who elect the Municipal Administration Group. *Three hours a week, fall quarter.* Credit, ½ course. Professor Janda.

38C. MUNICIPAL WATER SUPPLIES AND SANITATION.

A brief course for students in the School of Commerce who elect the Municipal Administration Group. *Three hours a week, winter quarter.* Credit, ½ course. Professor Saville.

44abc. RAILWAY AND HIGHWAY ENGINEERING.

A detail study of highway locations, foundations, and drainage, width and kind of roads; characteristics of various road materials; study of railway track appurtenances; highway and railway administration, legislation, and organization. *Three hours a week, fall, winter, and spring quarters.* Professor Janda.

45abc. ENGINEERING DESIGN.

Application of principles in course 44 to specific problems in the physical testing of road materials. *Three hours a week, fall, winter, and spring quarters. Laboratory fee, $3.00 a quarter.* Professor Janda.

50abc. ELECTRICAL MEASUREMENTS. Prerequisites, Physics 1-2-3E, and Mathematics 4E.

A study of the fundamental principles of electric circuits and apparatus, designed especially for students in Chemistry. The laboratory work will include the methods of electrical measurements used in the chemical laboratory, together with the applications of electrical energy for heating and control. *Five hours a week, fall, winter, and spring quarters. Laboratory fee, $5.00 a quarter.* Professor Lear.

60abcs. ELEMENTS OF ELECTRICAL ENGINEERING. Prerequisite, Mathematics 4-5-6E.

A study of the generation, transmission, control, and utilization of electrical energy, designed especially to meet the needs of students in Civil Engineering. Textbook: Dawes' *Electrical Engineering. Six hours a week, fall, winter, spring, and summer quarters. Laboratory fee, $5.00 a quarter.* Professor Hoefer and Mr. Gray.

61abc. INTRODUCTION TO ELECTRICAL ENGINEERING.

The aim of this course is to give the student an acquaintance with the materials, apparatus, and terminology used in electrical engineering. The fundamental principles of current, voltage, resistance, energy, and power are studied by means of practical problems with commercial apparatus. Practical work in wiring, together with a study of the National Electric code will be given in the spring quarter. *Four hours a week, fall, winter, and spring quarters. Laboratory fee, $6.00 a quarter.* Professor Lear and Mr. Gray.

62abcs. ELEMENTS OF ELECTRICAL ENGINEERING. Prerequisites, Engineering 61abc and Mathematics 1-2-3E.

A study of the fundamentals of direct-current generators and motors, followed by the elements of alternating-current circuits in the spring quarter. The laboratory work consists of studies of the operating characteristics of direct current machines; direct-current measurements; the effect of resistance, inductance, capacity, and frequency in alternating-current circuits; projects in illumination, telephony, and storage batteries. Textbook: Timbie and Bush. *Four hours a week, fall, winter, spring, and summer quarters. Laboratory fee, $4.00 a quarter.* Professor Hoefer and Mr. Gray.

63abcs. ELECTRICAL MACHINERY. Prerequisites, Engineering 62abc, Mathematics 4-5-6E.

In the fall and winter quarters, the work will consist of a review of electric and magnetic circuits, and a thorough study of direct-current machines. The elements of alternating-current circuits and machines with special attention to the alternator, transformer, and induction motor will be studied in the spring quarter. Textbooks: Langdorf, and Lawrence I. *Six hours a week, fall, winter, spring, and summer quarters. Laboratory fee, $5.00 a quarter.* Professors Lear and Hoefer.

64abc. ALTERNATING CURRENT MACHINERY. Prerequisites, Engineering 63abc and Mathematics 4-5-6E, or equivalent.

An analytical study of e. m. f. and current wave shapes; effect of iron cores; the transformer; the alternator; the synchronous motor, induction motor, repulsion motor; the synchronous converter. The laboratory work will follow closely the class room study. Textbooks: Lawrence, I and II. *Twelve hours a week, fall, winter, and spring quarters. Laboratory fee, $7.00 a quarter.* Professor Daggett and Mr. Gray.

70C. MUNICIPAL LIGHTING, POWER, AND PUBLIC UTILITIES.

A brief course for students in the School of Commerce who elect the Municipal Administration Group. *Three hours a week, spring quarter.* Credit, ½ course. Professor Daggett.

74a. ELECTRIC CIRCUITS. Prerequisites, Engineering 63abc and Mathematics 4-5-6E or equivalent.

A mathematical study of the fundamental phenomena in the electric, magnetic, dielectric, and thermal circuits, emphasizing the circuital relations common to all. Considerable attention will be devoted to the application of complex quantities to alternating current circuits. *Three hours a week, fall quarter.* Professor Daggett.

74b. HYDRO-ELECTRIC POWER AND TRANSMISSION. Prerequisites, Engineering 32bc and 74a.

A survey of the problems involved in hydro-electric power developments and the transmission of electric power over long distances. Application of hyperbolic functions to the calculation of long lines. Study of super-power systems. *Three hours a week, winter quarter.* Professor Daggett.

74c. ELECTRICAL EQUIPMENT PROJECTS. Prerequisites, Engineering 63abc or equivalent.

Solution of problems involving the application of electrical energy to various industries. The problems will be varied to suit the individual needs of the members of the class. Especial attention will be given to problems of importance to North Carolina industries. *Three hours a week, spring quarter.* Professor Daggett.

84abc. DYNAMO DESIGN. Corequisite, Engineering 64abc.

Electrical, mechanical, and economic questions involved in the design of electrical machinery; the effect of the design constants on the proportions and operation of machines. Each student will be required to make complete calculations for a d. c. generator or motor, a transformer, and an alternator. Reference Book: Gray. *Six hours a week, fall, winter, and spring quarters.* Professor Lear.

90abcs. STEAM MACHINERY. Prerequisites, Mathematics 4-5-6E and Physics 1-2-3E.

A course in the fundamentals of steam-power and power-plant machinery, designed especially for the needs of students in Civil Engineering. Textbook: Allen and Bursley. *Two hours a week, fall, winter, spring, and summer quarters.* Professor Hoefer.

93abcs. HEAT POWER ENGINEERING. Prerequisite, Mathematics 4-5-6E.

A study of the laws governing the transformation of heat into mechanical energy, properties of gases and vapors; gas and vapor cycles; power, efficiency, and performance of heat engines; study of steam engines, steam turbines, and gas engines; fuels and combustion; boilers and accessories; gas producers, feed water heaters and purifiers, condensers, compressed air, and refrigeration. Textbook: Hirschfeld and Barnard. *Six hours a week, fall, winter, spring, and summer quarters. Laboratory fee, $5.00 a quarter.* Professor Hoefer.

94abc. ADVANCED HEAT POWER ENGINEERING. Prerequisite, Engineering 93abc.

A continuation of Engineering 93abc. An advanced study of power plant equipment, including calculations used in the design and application of such equipment. *Seven hours a week, fall, winter, and spring quarters. Laboratory fee, $5.00 a quarter.* Professor Hoefer.

95a. POWER PLANTS. Prerequisite, Engineering 94abc.

A study of load conditions and estimation of power requirements. On the basis of comparative economy of different types of power plant apparatus a choice is made of boilers, turbines, pumps, etc., to meet the demands of the given load. These are properly arranged in a plant lay-out and a study made of fixed charges and operating costs. *Ten hours a week, fall quarter.* Professor Hoefer.

96abc. MACHINE DESIGN. Prerequisite, Engineering 2s and 5abc.

A continuation of Engineering 2s. Further study of methods of calculation of form and size, based on load to be carried, of machine parts. The design of a complete machine is carried through, including calculations and preparation of working drawings. *Eight hours a week, fall, winter, and spring quarters.* Professor Hoefer.

COURSES FOR GRADUATE STUDENTS

100abc. HYDRAULIC AND SANITARY ENGINEERING.

The study and investigation of special problems relating to hydraulics, water power, and sanitary engineering. Professor Saville.

103abc. STRUCTURAL ENGINEERING.

Computation of stresses of statically indeterminate structures. Lectures and design problems in the drafting room. Professors Braune and Hickerson.

106abc. RESEARCH IN HIGHWAY ENGINEERING.

Investigation of materials in Highway Engineering through coöperation with the Highway Commission. The Research Fellow will spend part time at the University and part time in the field with the Highway Commission. Fellowships will be awarded to worthy graduate students who can present the proper qualifications. Professor Janda.

107abc. DETAILED LABORATORY STUDY OF HIGHWAY MATERIALS.

The students will be given problems for investigation that are being constantly suggested in the scientific construction and betterment of highways. Professor Janda.

115abc. ELECTRICAL ENGINEERING RESEARCH AND DESIGN.

The solution of one or more definite problems in some particular field of electrical engineering. The work of this course will be outlined, as fas as possible, to suit the needs of the individual student, and will consist of original investigations, designs, or the economic study of some existing electric power plant. Professors Daggett and Lear.

DEPARTMENT OF ENGLISH

EDWIN GREENLAW, Ph.D., *Kenan Professor of English.*

JAMES FINCH ROYSTER, Ph.D., *Kenan Professor of English Philology.*

FREDERICK HENRY KOCH, A.M., *Professor of Dramatic Literature.*

NORMAN FOERSTER, A.M., *Professor of English.*

JOHN MANNING BOOKER, Ph.D., *Professor of English.*

LOUIS GRAVES, A.B., *Professor of Journalism.*

THORNTON SHIRLEY GRAVES, Ph.D., *Professor of English.*

GEORGE MCFARLAND MCKIE, A.M., *Professor of Public Speaking.*

CLARENCE ADDISON HIBBARD, M.A., *Associate Professor of English.*

WILLIAM FLINT THRALL, Ph.D., *Associate Professor of English.*

WILLIAM DOUGALD MACMILLAN, 3d, A.M., *Instructor in English.*

ALMONTE CHARLES HOWELL, M.A., *Instructor in English.*

RAYMOND WILLIAM ADAMS, A.M., *Instructor in English.*

ROBERT RUSSELL POTTER, A.M., *Instructor in English.*
GEORGE VERNON DENNY, S.B., *Instructor in English.*
THOMAS ALEXANDER LITTLE, A.B., *Instructor in English.*
CHARLES BOWIE MILLICAN, A.M., *Instructor in English.*
WILLIAM OLSEN, A.B., *Instructor in English.*
FRANK THORNBER THOMPSON, A.M., *Instructor in English.*
JOHN MILTON WILLIAMS, A.M., *Instructor in English.*

Teaching Fellows in English, 1923-1924

HOWARD MEACHAM REAVES, A.B.
WILLIAM STANFORD WEBB, B.A.
SAMUEL HOOD WILLIS, A.B.

Assistants in English, 1923-1924

HENRY BASCOM MOCK, A.M.
WILBUR WHITE STOUT, A.M.
A. THEODORE JOHNSON, A.M.

Courses for Undergraduates

1. FRESHMAN ENGLISH. Required of all Freshmen except those in the School of Engineering.

Intensive reading, chiefly in prose; extensive reading among selected books in the Library; training in reading through a progressive series of exercises; training in writing through exercises in sentence-revision and through frequent written compositions. Fortnightly conferences. *Five hours a week, every quarter.* Credit, 1 course. Professor Thrall (Chairman), Messrs. MacMillan, Millican, Potter, Olsen, Little, Reaves, Willis.

1a. COMPOSITION.

A prerequisite of English 1 for Freshmen who need additional drill in the mechanics of writing. In the case of Freshmen required to take this course, it will take the place of an elective course. One hour weekly is given to oral English. Intensive and extensive reading. Weekly conferences. *Six hours a week, every quarter.* Credit, 1 course. Messrs. Adams (Chairman), Thompson, Mock, Stout, Webb.

2. ENGLISH FOR PRE-MEDICAL STUDENTS.

A continuation of English 1 for students in the two-year pre-medical course who do not need 1 A. *Five hours a week, spring quarter.* Credit, 1 course. Mr. MacMillan.

3-4-5. ENGLISH LITERATURE.

Works representative of prominent figures in successive periods of English Literature are studied as an expression of the life and thought of the periods in which they were written and as the embodiment of

permanent human interests and ideals. English 3 is required of all Sophomores (except those in Engineering) and must be followed by either 4 or 5 as the student chooses. The third course may be counted a sophomore elective should the student desire the entire sequence, 3, 4, and 5. *Five hours a week.* English 3, *fall and winter;* English 4, *winter and spring;* English 5, *spring quarter.* Credit, 3 courses. Professors Hibbard (Chairman), Foerster, T. S. Graves, Booker, Thrall; Messrs. MacMillan and Williams.

The following courses, 9abc, 10abc, 11abc, and 12abc, are offered by the Department of English especially for students in the School of Engineering. They are not open to others.

9abc. COMPOSITION.

The mechanics of writing studied through class work and conferences on inspection-trip reports and other written exercises of the Freshman year in Engineering courses. During the winter and spring quarters certain examples of modern scientific writing are also studied. *Two hours a week and conferences, every quarter.* Mr. Potter (Chairman), Messrs. Millican and Thompson.

10abc. COMPOSITION.

A continuation of the conference work of course 9, based on the written exercises of the Sophomore courses in Engineering. (Omitted in 1923-1924). *Hours by arrangement, every quarter.* Mr. Howell and an Assistant.

11abc. LITERATURE AND TECHNICAL COMPOSITION.

A course designed to make clear the relation between literature and science, both by extensive and intensive reading of the classics of English scientific literature and by actual practice in writing technical and professional forms. Required of Juniors in Engineering courses. *Three hours a week, fall, winter, and spring quarters.* Mr. Howell.

12abc. CONFERENCE COURSE.

Conference work for Seniors in Engineering, based on laboratory reports and other written work of the Senior Year. *Hours by arrangement.* Mr. Howell.

13-14-15. DRAMATIC INTERPRETATION. Sophomore, Junior, and Senior elective.

A course in dramatic action and speech, using as material scenes from Shakespeare's plays and short modern plays. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor McKie.

16-17-18. PUBLIC DISCUSSION AND DEBATE. Sophomore, Junior, and Senior elective. Required of Sophomores in Engineering.

A study of the principles of argumentation and practice in the application of these principles to speaking in such forums as the town

meeting, the legislature, and the court room. Attention will also be paid to voice, gesture, and the relations of speaker and audience. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor McKie and Mr. Olsen.

20. COMPOSITION. Sophomore, Junior, and Senior elective.

A course emphasizing commercial relations and problems, and affording practice in the writing of professional forms. Especially designed for students in the School of Commerce. *Five hours a week, fall, winter, and spring quarters.* Credit, 1 course. Mr. Williams.

21. ADVANCED COMPOSITION. Junior and Senior elective.

A course in expository writing for students desiring practice in organization of material. While complete in itself, the course is intended to give an understanding of practical rhetorical principles such as will lay a foundation for other forms of writing. *Five hours a week, fall quarter.* Credit, 1 course. Professor Hibbard.

22. ADVANCED COMPOSITION. Junior and Senior elective.

The work in this course will be chiefly in the field of the essay. Emphasis will be placed on contemporary interests, political, social, and literary, as they lend themselves to this form of writing. (Offered in 1923-1924 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Hibbard.

23. ADVANCED COMPOSITION. Junior and Senior elective.

This course is designed to offer students an opportunity for short story writing and to familiarize them with the technique of the form. Four stories will be written during the term and the work of various European and American authors will be studied. (Offered in 1924-1925 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Hibbard.

30abc. ADVANCED NEWS WRITING.

Work, under supervision and instruction, for publication. *Throughout the year.* Credit, ½ or 1 course. Professor Louis Graves.

37. SHAKESPEARE: THE COMEDIES. Sophomore, Junior, and Senior elective.

A study of Shakespeare's contribution to comedy. There is a consideration of Elizabethan conditions, the technique of the theatre, and the art of the playwright, and a comparison of Shakespeare's practice in comedy with the classical and other forms. (Offered in 1923-1924 and in alternate years). *Five hours a week, fall, quarter.* Credit, 1 course. Professor Koch.

38. SHAKESPEARE: THE TRAGEDIES. Sophomore, Junior, and Senior elective.

This course is complementary to English 37. It is a study of Shakespeare's contribution to tragedy and a consideration of his conception

of tragedy as compared with the classical and modern types. (Offered in 1924-1925 and in alternate years). *Five hours a week, fall quarter.* Credit, 1 course. Professor Koch.

51. THE ROMANTIC MOVEMENT. Sophomore, Junior, and Senior elective.

A survey of English literature of the romantic period with especial attention to the greater poets. *Five hours a week, winter quarter.* Credit, 1 course. Professor Thrall.

55. VICTORIAN LITERATURE, I. Sophomore, Junior, and Senior elective.

The aims of this course and the one that follows it (56) are to understand the best known and the most representative works of the chief Victorian writers, to appreciate their literary qualities, and to relate them to their time and to ours. The writers studied in English 55 are Carlyle, Tennyson, Browning, Arnold, Dickens, and Thackeray. *Five hours a week, spring quarter.* Credit, 1 course. Professor Booker.

56. VICTORIAN LITERATURE, II. Junior and Senior elective.

(For description, see 55 above). The writers studied in this course are Ruskin, Rossetti, Morris, Swinburne, George Eliot, Charlotte Brontè, and George Meredith. (Offered in 1923-1924 and in alternate years). *Five hours a week, fall quarter.* Credit, 1 course. Professor Booker.

59. AMERICAN LITERATURE. Sophomore, Junior, and Senior elective.

A survey of the literature of the colonial and revolutionary periods and of the early nineteenth century through Hawthorne and Poe. *Five hours a week, fall quarter.* Credit, 1 course. Professor Thrall.

60. AMERICAN LITERATURE. Sophomore, Junior, and Senior elective.

A survey of American Literature from Emerson to the present. *Five hours a week, winter quarter.* Credit, 1 course. Professor Hibbard.

61. GREAT BOOKS OF THE NINETEENTH CENTURY, I. Junior and senior elective.

The aims of this course and the one that follows it (62) are: first, to supplement the reading in English 3-4 for those who do not contemplate electing more than one or two courses in English literature; second, to interest the student in masterpieces of the 19th century by revealing these as guides for man in the most vital relationships of life,—namely, in 61, his relations to God and nature; in 62, his relations to woman and the State. (Offered in 1924-1925 and in alternate years). *Five hours a week, fall quarter.* Credit, 1 course. Professor Booker.

62. GREAT BOOKS OF THE NINETEENTH CENTURY, II. Junior and Senior elective.

(For description, see 61 above. Offered in 1924-1925 and in alternate years). *Five hours a week, winter quarter.* Credit, 1 course. Professor Booker.

66. THE NINETEENTH CENTURY NOVEL. Sophomore, Junior, and Senior elective.

A survey of the development of the English novel during the nineteenth century, with attention to parallel developments in French and Russian fiction. Special studies will be made of Scott, Thackeray, George Eliot, and George Meredith; considerable reading will be required in the work of Balzac, Turgenieff, and Tolstoy. *Five hours a week, spring quarter.* Credit, 1 course. Professor ————.

67. RECENT ENGLISH LITERATURE. Junior and Senior elective.

The primary object of this course is to follow certain main currents of modern thought in the more significant literature of the three decades preceding 1914. The authors with whom the course is chiefly concerned are Hardy, Stevenson, Kipling, Arnold Bennett, Conrad, and Shaw. (Offered in 1923-1924 and in alternate years). *Five hours a week, winter quarter.* Credit, 1 course. Professor Booker.

Courses for Graduates and Advanced Undergraduates

31-32-33. DRAMATIC COMPOSITION.

A practical course in dramatic composition. Emphasis is placed on the materials of local tradition and folk-lore, and of present-day life, in North Carolina. Plays written in the course are selected for production by The Carolina Playmakers, and serve to illustrate the principles of dramatic art. Registration in the course is limited. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professor Koch.

34-35-36. DRAMATIC PRODUCTION.

A practical course in dramatic production. During the year the following subjects are studied in theory and practice: acting, make-up, stagecraft, (including the designing and making of stage models and actual construction of scenery for the productions of The Carolina Playmakers) lighting, costuming, theatre designing and organization. At least one play will be produced in the course each quarter for public presentation. This course is a means of training students as directors of school and community theatres. Lectures will be given during the year by Professor Koch and other specialists in the various phases of dramatic art. Registration in the course is limited. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Mr. Denny.

40. ENGLISH LITERATURE, 1557-1674.

A survey of English literature, exclusive of the drama, from the beginning of the Elizabethan period to the death of Milton. (Offered in 1923-1924 and in alternate years). *Five hours a week, fall quarter.* Credit, 1 course. Professor Greenlaw.

41. SPENSER.

A study of the poetry of Spenser as an introduction to the English Renaissance. (Offered in 1924-1925 and in alternate years). *Five hours a week, fall quarter.* Credit, 1 course. Professor Greenlaw.

42. BACON.

A study of the works of Bacon, with emphasis on his relation to educational and political theory and his contribution to scientific method. (Offered in 1924-1925 and in alternate years). *Five hours a week, winter quarter.* Credit, 1 course. Professor Greenlaw.

43-44. THE ELIZABETHAN DRAMA.

A brief study of the beginnings of the English drama, followed by an intensive study of the period from Lyly to the closing of the theatres. The works of Shakespeare are considered in their relationship to those of his immediate predecessors and contemporaries. Students who propose to elect this course are advised to prepare for it by taking at least one of the following courses: English 37, 38, 40, 41, 42. (Offered in 1924-1925 and in alternate years). *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor T. S. Graves.

45. MILTON.

The works of Milton are studied in the light of the life, times, and culture of the poet, with some consideration of the problems involved in such a study. (Offered in 1923-1924 and in alternate years). *Five hours a week, winter quarter.* Credit, 1 course. Professor Greenlaw.

47-48. ENGLISH LIFE AND THOUGHT IN EIGHTEENTH CENTURY LITERATURE.

A survey of English literature from 1660 to 1780, emphasizing (1) changes in national life and manners; (2) the growth of philosophic and political systems; (3) certain characteristic literary forms, such as comedy, the essay, and the novel. (Not given in 1923-1924.) *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor ————.

68. COMPARATIVE DRAMA.

A general survey of the drama and the theatre from Aeschylus to Ibsen. The development of dramatic literature is studied through representative plays in translation of the leading European dramatists. *Five hours a week, winter quarter.* Credit, 1 course. Professor Koch.

69. COMPARATIVE DRAMA.

A brief consideration of the early English drama and a study of the folk tradition in more recent times—especially in Ireland. Particular attention is paid to the Celtic Renaissance—to the rediscovery of the Irish legends, and the works of Yeats, Synge, Lady Gregory, St. John Ervine, and others. Consideration is given to the beginnings of a new folk drama in America. (Offered in 1924-1925 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Koch.

71. THE MODERN DRAMA.

A study of representative plays of recent times, beginning with Ibsen. Special attention is given to the function of the drama in interpreting modern thought and changing social conditions. (Offered in 1923-1924 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Koch.

75. THE RESTORATION AND EIGHTEENTH CENTURY DRAMA.

A rapid survey of the progress of English drama from the Restoration to Sheridan. Special emphasis will be placed upon the types of drama that flourished during the years 1660-1790 and the influences that determined the theatrical conditions of the period. (Offered in 1923-1924 and in alternate years). *Five hours a week, winter quarter.* Credit, 1 course. Professor T. S. Graves.

78. LITERARY CRITICISM.

Through a study of such literary critics as Plato, Aristotle, Horace, Coleridge, Wordsworth, Henry James, and Croce, this course aims to render clear the principles of classical, pseudo-classical, romantic, and realistic art, and to consider the possibility of an absolute criterion for the evaluation of literature. *Five hours a week, fall quarter.* Credit, 1 course. Professor Foerster.

81. OLD ENGLISH: INTRODUCTORY COURSE.

A study of Old English grammar and syntax. A considerable amount of Old English prose is read. *Five hours a week, winter quarter.* Credit, 1 course. Professor Royster.

82. PRESENT-DAY ENGLISH.

A consideration of the habits of current English: recent spread of English; American English; class and geographical dialects; written and spoken language; word growth and decay; other tendencies observable in the living language. *Five hours a week, fall quarter.* Credit, 1 course. Professor Royster.

83. MIDDLE ENGLISH: CHAUCER.

Previous training in Old or Middle English, not a fixed prerequisite. The work of the course will consist chiefly of a reading and discussion of Chaucer's works, with some consideration of Chaucer's language. (Offered in 1924-1925 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Royster.

84. MIDDLE ENGLISH LITERATURE: INCLUSIVE OF CHAUCER. The main purpose of the course is to acquaint the student with the social, political, and religious background of medieval England. A fuller study will be made of the historical and philological relations of Middle English than in English 83. *Five hours a week, spring quarter.* Credit, 1 course. Professor Royster.

Courses Primarily for Graduates

101. BEOWULF. Prerequisite English 81. (Given in 1923-1924). *Five hours a week, spring quarter.* Credit, 1 course. Professor Royster.

110abc. STUDIES IN ELIZABETHAN LITERATURE.

Research in special problems in Elizabethan literature. Open to those who have had one of the following courses or an equivalent: English 40, 41, Comparative Literature 61. (Given in 1923-1924 and in alternate years). *Throughout the year.* Credit, 1½ courses. Professor Greenlaw.

112abc. STUDIES IN SEVENTEENTH CENTURY LITERATURE.

Research in special problems in the literature and thought of the seventeenth century. Open to those who had one or more of the following courses or an equivalent: English 40, 41, 42, 45, Comparative Literature 61. (Offered in 1924-1925 and in alternate years). *Throughout the year.* Credit, 1½ courses. Professor Greenlaw.

117. ROMANTICISM IN GERMANY AND ENGLAND.

This course traces the development of German romantic thought and art, and their influence in England. Attention is centered upon the problem of the native and foreign elements in Coleridge, Wordsworth, and the young Carlyle. *Five hours a week, winter quarter.* Credit, 1 course. Professor Foerster.

118. ROMANTICISM IN THE UNITED STATES.

This course studies the influence of British and Continental romanticism upon American writers, and the modification of the romantic tradition by the conditions of our life. Attention is centered upon a single topic or personality, varied from year to year (in 1924-1925, Walt Whitman). *Five hours a week, spring quarter.* Credit, 1 course. Professor Foerster.

125-126-127. DRAMATIC THEORY AND PRACTICE.

The purpose of this course is two-fold: to study the development of dramatic technique and criticism; and to give to graduate students an opportunity for advanced work in dramatic composition and production. The growth of dramatic theory and practice is treated in a comparative study of the chief periods of dramatic literature. In the original play-writing emphasis is placed on the materials of native tradition and present-day life. The Carolina Playmakers furnish a

working laboratory in production for plays written in this course. In this way the essentials of stagecraft are studied and demonstrated in practice. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professor Koch and Mr. Denny.

131. SEMINAR: METHODS.

The principles and method of the higher study of English, with a series of simple problems in bibliography and literary history. *Five hours a week, fall quarter.* Credit, 1 course. Professor T. S. Graves, Chairman.

133. SEMINAR: THE TEACHING OF ENGLISH.

A study of the method and content of the English course in high schools and elementary college courses. *Spring quarter.* Credit, ½ course. Professor Greenlaw and others.

141. SEMINAR.

Research in a special field under the direction of a member of the department.

DEPARTMENT OF GEOLOGY

COLLIER COBB, A.M., Sc.D., *Professor of Geology and Mineralogy.*
WILLIAM FREDERICK PROUTY, Ph.D., *Professor of Stratigraphic Geology.*
JOEL HOWARD SWARTZ, Ph.D., *Assistant Professor of Geology.*
GERALD RALEIGH MACCARTHY, A.B., *Instructor in Geology.*
FRANK MCKIM SWARTZ, A.B., *Instructor in Geology.*

Teaching Fellow in Geology, 1923-1924

HERMAN JENNINGS BRYSON, A.B.

Assistants in Geology, 1923-1924

CLARENCE E. MILLER.
ROBERT SESSOMS WEAVER.
THOMAS HILTON EVANS.
JAMES ELVIN CAUDLE.
CLAUDE STUART JOHNSTON.

(For description of Geological Laboratories, see page 33).

Courses for Undergraduates

1-2. INTRODUCTION TO GEOLOGY.

Lectures with laboratory and field work; laboratory work in the first quarter on common minerals and rocks, and map interpretation; in the second quarter on geological folios and the more common fossils. The first quarter deals with physical geology, with physiographic pro-

cesses and their results; the second quarter is a study of the outlines of historical geology. *Five hours a week, fall and winter quarters. Laboratory fee, $3.00 a quarter. Geology 1 repeated in Spring quarter.* Credit, 2 courses. Professors Cobb, Prouty, and Swartz, and Messrs. MacCarthy and Assistants.

3-4. MINERALOGY. Junior and Senior elective. Prerequisites, Geology 1-2 and Chemistry, 1-2.

Crystallography, physical and chemical properties of minerals, blowpipe analysis; lectures, laboratory work, and field work. *Five hours a week, fall and winter quarters. Laboratory fee, $5.00 a quarter.* Credit, 2 courses. Mr. MacCarthy.

5. INDUSTRIAL AND COMMERCIAL GEOGRAPHY. Required of Freshmen in the School of Commerce. Not open to others.

Lectures and laboratory work. The first part of the course deals briefly with weather and climate, origin and nature of soils, and the chief natural divisions of the world. *Five hours a week, fall and winter quarters. Laboratory fee, $3.50 a quarter.* Credit, 1 course. Mr. Swartz.

7. PRINCIPLES OF GEOLOGY. Junior and Senior elective. Prerequisite, Geology 1-2.

Principles of Geology, including History of Geological Science; Lectures, field work, and library work, with reports, including a report on the surficial geology of a selected area at a distance from Chapel Hill. *Five hours a week, fall quarter. Laboratory fee, $3.00.* Credit, 1 course. Professor Cobb and Assistant.

8-9. FIELD GEOLOGY AND STRATIGRAPHY. Prerequisite, Geology 1-2.

Lectures, with laboratory, field work, and conferences. The first quarter deals with field and structural geology; the second quarter with stratigraphy, palaeontology, and historical geology. *Five hours a week, winter and spring quarters. Laboratory fee, $3.50 a quarter.* Credit, 2 courses. Professor Prouty and Assistants.

10. OIL GEOLOGY. Prerequisite, Geology, 8-9.

Lectures, laboratory work, and reports. A study of the origin, distribution, and accumulation of petroleum, with special relation to the oil fields of North America; methods of prospecting for oil, recovery of oil, and valuation of oil properties. *Five hours a week, spring quarter. Laboratory fee, $3.50.* Credit, 1 course. Professor Prouty.

11-12. ECONOMIC GEOLOGY. Prerequisites, Geology, 1-2, 3-4, and Chemistry 1-2.

Lectures, laboratory work, and reports. During the Fall Quarter the non-metallic minerals will be studied. The metallic minerals will be considered in the Winter Quarter. *Five hours a week, fall and winter quarter. Laboratory fee, $3.50 a quarter.* Credit, 2 courses. Professor Prouty.

13. PETROLOGY. Prerequisites, Geology 1-2, 3-4, and Chemistry 1-2. Laboratory work on rocks; a study of the origin, classification, and distribution of rocks. *Three hours a week, spring quarter. Laboratory fee, $3.50.* Credit, ½ course. Professor Prouty and Assistant.

14. PETROGRAPHY. Prerequisites, Geology 1-2, 3-4, and Chemistry, 1-2. Lectures, laboratory work on the microscopic physiography of the rock-forming minerals; optical mineralogy and the theory of light as applied to the polarizing microscope; minerals as observed in thin rock sections. *Three hours a week, spring quarter. Laboratory fee, $3.50.* Credit, ½ course. Professor Prouty.

15. PALEONTOLOGY. Prerequisite, Geology 1-2.
Five hours a week, fall quarter. Laboratory fee, $3.50. Credit, 1 course. Mr. MacCarthy.

18-19-20. ENGINEERING GEOLOGY. For students in Engineering.
Three hours a week, fall, winter, and spring quarters. Laboratory fee, $3.50 a quarter. Credit, 1½ courses. Professor Prouty.

21-22. INDUSTRIAL AND COMMERCIAL GEOGRAPHY. Senior elective.
Lectures, library work, and laboratory work. The course deals with man's interaction with his varying environment in the development of industries, and with the geographic conditions of different countries as giving rise to commerce. *Five hours a week, fall and winter quarters. Laboratory fee, $2.50 a quarter.* Credit, 2 courses. Professor Cobb and Assistant.

23-24. ORIGIN AND NATURE OF SOILS. Prerequisites, Geology 1-2, 3-4, Chemistry 1-2.
Lectures, field work, laboratory work, and theses. The course is given primarily for men who wish to enter the State or Federal Soil Surveys or to engage in farming. Students in this course are expected to keep Saturday open for field work. *Five hours a week, winter and spring quarters. Laboratory fee, $2.50 a quarter.* Credit, 2 courses. Professor Cobb and Assistants.

25. ADVANCED WORK IN PHYSIOGRAPHY. Prerequisite, Geology 1-2. Junior and Senior elective.
Lectures, field work, and laboratory work, dealing in detail with physiographic processes and their results; geomorphology. An extended field study is required in this course. *Three hours a week, spring quarter. Laboratory fee, $2.00.* Credit, ½ course. Professor Swartz.

31. MINERALOGY FOR ENGINEERS. Not open to others.
Three hours a week, spring quarter. Credit, ½ course. Mr. MacCarthy.

51-52-53. ADVANCED FIELD WORK AND SPECIAL RESEARCH IN GEOLOGY AND GEOGRAPHY.

Problems and work adapted to the special needs of the student. For Graduates and for specially prepared Seniors. Students in this course are expected to keep Saturday open for field work. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professors Cobb and Prouty and Assistants.

61. ADVANCED CRYSTALLOGRAPHY.

This course includes a detailed consideration of the nature of crystals and crystalline substances, the use of both contact and reflecting goniometer, and crystal drawing. Open to students who have had Chemistry 1-2 and Geology 3-4. *Five times a week, lectures and laboratory, spring quarter. Laboratory fee, $3.50.* Credit, 1 course. Mr. MacCarthy.

71-72-73. ADVANCED PALEONTOLOGY.

A study of the classification and generic and specific determination of the invertebrata, chiefly fossil. Prerequisite, general paleontology (Geology 15). *Five times a week, lectures and laboratory, fall, winter, spring quarters. Laboratory fee, $3.50 a quarter.* Credit, 3 courses. Professor Swartz.

Courses for Graduates

104-105-106. SPECIAL RESEARCH IN GEOLOGY AND GEOGRAPHY.

The student is expected to devote six weeks to work in the field, accompanied by the instructor, and to work up his results during the first quarter of the college year. The entire research constitutes three courses. *Fall, winter, and spring quarters.* Credit, 3 courses. Professors Cobb and Prouty.

107-108-109. SPECIAL RESEARCH.

Special Research in economic geology, in historical geology, or in petrology and petrography, two quarters of which must be taken as a seminar course. *Fall, winter, and spring quarters.* Credit, 3 courses.

The Geological Seminar meets fortnightly for the review and discussion of current geological literature, and for the presentation of original papers.

DEPARTMENT OF GERMANIC LANGUAGES

WALTER DALLAM TOY, M.A., *Professor of the Germanic Languages and Literatures.*

KENT JAMES BROWN, Ph.D., *Professor of German.*

ERNST CHRISTIAN METZENTHIN, Ph.D., *Assistant Professor of German.*

Courses for Undergraduates

1-2. ELEMENTARY COURSE.

Grammar; written and oral exercises; translation; sight reading. This course may be counted for credit toward the A.B. degree pro-

vided it is followed by three other German courses. It may be counted for credit as an elective by students who have selected for their language requirement two other foreign languages. *Five hours a week, every quarter.* Credit, 2 courses. Professor Metzenthin.

3-4. INTERMEDIATE COURSE. Freshman and Sophomore elective. Prerequisite, German 1-2.
Translation, sight reading, composition, grammar, oral exercises. *Five hours a week, every quarter.* Credit, 2 courses. Professor Brown.

11. INTERMEDIATE COURSE. Junior and Senior elective. Prerequisite, German 3-4.
Practice in writing and speaking German. *Five hours a week, *spring quarter.* Credit, 1 course. Professor Brown.

21. ADVANCED COURSE. Sophomore, Junior, and Senior elective. Prerequisite, German 3-4.
Lessing: Minna von Barnhelm; Schiller: Die Jungfrau von Orleans. *Five hours a week, fall or winter quarter.* Credit, 1 course. Professor Toy.

22. ADVANCED COURSE. Sophomore, Junior, and Senior elective. Prerequisite, German 3-4.
Schiller: Wilhelm Tell; Gœthe: Iphigenie auf Tauris, or Egmont. *Five hours a week, winter or spring quarter.* Credit, 1 course. Professor Toy.

23. ROMANTICISM IN GERMANY. Sophomore, Junior, and Senior elective. Prerequisite, German 3-4.
Lectures, reading of selected texts. *Five hours a week, spring quarter.* Credit, 1 course. Professor Toy.

25-26. WIDE READING IN GERMAN LITERATURE OF THE NINETEENTH CENTURY. Sophomore, Junior, and Senior elective. Prerequisite, German 3-4.
Five hours a week, fall and winter, or winter and spring quarters. Credit, 2 courses. Professor Brown.

Courses 21-22, 23, 25-26, are parallel in grade. They present an introduction to the study of German literature.

Courses for Graduates and Advanced Undergraduates

31. GERMAN LITERATURE SINCE 1700. Junior and Senior elective.
Lectures will be given on the development of German life and literature from 750 A.D. to the special period embraced in this course, and during the Quarter there will be lectures on later literary movements and on the authors whose works are read. The reading will be taken from the translated works of Klopstock, Wieland, Lessing, Gœthe,

* See foot-note to German 41-42.

Schiller, the Storm and Stress writers, the Romantic School, and a selection of 19th century writers after 1832. In some cases the selection of authors to be read will depend upon the possibility of obtaining reliable English translations. *Five hours a week,* winter quarter.* Credit, 1 course. Professor Toy.

41-42. GOETHE'S LIFE AND WORKS. Prerequisite, German 21, or 22, or 23, or 25-26.

Lectures, readings, reports. Gœtz von Berlichingen, Werthers Leiden, Tasso, Gedichte, Wilhelm Meister. Hermann und Dorothea, Briefe, Dichtung and Wahrheit. This course may be elected only after consultation with the instructor. *Five hours a week, *two quarters.* Credit, 2 courses. Professor Brown.

43-44. GOETHE'S FAUST. Prerequisite, German 21, or 22, or 23, or 25-26.

Gœthe: Faust, Parts I and II. This course may be elected only after consultation with the instructor. *Five hours a week, *two quarters.* Credit, 2 courses. Professor Toy.

45. GERMAN DRAMA IN THE NINETEENTH CENTURY. Prerequisite, German 21 and 22 or 25 and 26.

Kleist, Grillparzer, Hebbel, Ludwig, Hauptmann. Reading, Lectures, Reports. *Five hours a week, *one quarter.* Credit, 1 course. Professor Brown.

61. INTRODUCTION TO COMPARATIVE PHILOLOGY. Prerequisite, 1 classical and 1 modern foreign language.

Theories on the origin and development of human speech. Classification and history of languages; Indo-European Branch: a. Classical languages; b. Romance group (especially French); c. Germanic family: Gothic, Old Saxon, Anglo-Saxon (Old English), Old High German. Linguistics (Phonetics, Accentuation, Sound Shiftings, Etymology). This course may be elected only after consultation with the instructor. *Five hours a week, *one quarter.* Credit, 1 course. Professor Metzenthin.

Courses Primarily for Graduates

101. GOTHIC. Prerequisite, German 21, or 22, or 23, or 25-26.

Braune's *Gotische Grammatik;* selected parts of Paul's *Grundriss der Germanischen Philologie.* Introduction to Germanic Philology. *Five hours a week, *one quarter.* Credit, 1 course. Professor Toy.

103. OLD HIGH GERMAN. Prerequisite, German 21, or 22, or 23, or 25-26.

Braune's *Althochdeutsche Grammatik;* Braune's *Althochdeutsches Lesebuch. Five hours a week, *one quarter.* Credit, 1 course. Professor Toy.

* NOTE.—Courses 11, 31, 41-42, 43-44, 45, 61, 101, 103, 105, 107, will be given, if they are desired by a sufficient number of students. In any case the department reserves the right to withdraw a course for which the registration is very small.

105. OLD SAXON. Prerequisite, Advanced German or Old English.

Introduction to the Grammar and Syntax of the Old Saxon dialect of the Germanic language; comparison with Old English and Old High German. Study of "Heliand" and "Genesis,"—including the characteristics of the Heroic Epic and its alliterative form,—as well as of the minor prossic Low German documents of the 9th and 10th centuries, based on Otto Basler, *Altsächsisch,* (Freiburg, 1923). *Five hours a week, *one quarter.* Professor Metzenthin.

107. MIDDLE HIGH GERMAN. Prerequisite, German 21, or 22, or 23, or 25-26.

Middle High German grammar. Wide reading. *Five hours a week, *one quarter.* Credit, 1 course. Professor Brown.

DEPARTMENT OF GREEK

WILLIAM STANLY BERNARD, A.M., *Professor of Greek.*
SHIPP GILLESPIE SANDERS, A.M., *Assistant Professor of Classics.*

Courses for Undergraduates

1-2. BEGINNERS GREEK.

A course for students who have had no opportunity for studying Greek. This course may be counted for credit toward the A.B. degree provided it is followed by Greek 3, 4, and 5. It may be counted for credit as an elective by students who have selected for their language requirement two other foreign languages. *Five hours a week, fall, winter, and spring quarters.* Credit 2, courses. Professors Bernard and Sanders.

3. INTERMEDIATE GREEK: GREEK PROSE. Freshman and Sophomore elective. Prerequisite, Greek 1-2.

A course continuing Greek 1-2. Reading and study of selections from the best Attic prose of Xenophon, Lysias, and Plato. *Five hours a week, fall quarter.* Credit, 1 course. Professor Bernard.

4. INTERMEDIATE GREEK: HOMER. Freshman and Sophomore elective. Prerequisite, Greek 1-2, and 3.

A course continuing the purpose of Greek 3, to increase the student's proficiency in reading the language while at the same time leading him into the best literature. *Five hours a week, winter quarter.* Credit, 1 course. Professor Bernard.

5. PLATO. Sophomore and Junior elective. Prerequisite, Greek 3-4.

Apology and Crito with selections from the other Socratic dialogues. The course is designed for a more critical study of Greek prose and the thought movements which culminated in the Socratic teaching. *Five hours a week, spring quarter.* Credit, 1 course. Professor Bernard.

NOTE.—Courses 105, 107, will be given if they are desired by a sufficient number of students. In any case the department reserves the right to withdraw a course for which the registration is very small.

6. DRAMA. Sophomore and Junior elective. Prerequisite, Greek 3-4. Two tragedies and one comedy will be studied. This course may be substituted for the fifth course of the foreign language requirement with the approval of the professor of Greek. *Five hours a week, one quarter, on application.* Credit, 1 course. Professor Bernard.

7. THE GREEK NEW TESTAMENT. Sophomore and Junior elective. Prerequisite, Greek 3-4. St. Mark: Gospel, with selections from the other Gospels. This course is both cultural and vocational. Designed for those students who wish a more intimate knowledge of the original Bible and also especially for divinity and Y. M. C. A. students. With approval of the professor of Greek it may be substituted for the fifth course of the foreign language requirement. *Five hours a week, one quarter, on application.* Credit, 1 course. Professor Bernard.

8. HOMER: ADVANCED COURSE. Sophomore, Junior, and Senior elective. Prerequisite, Greek 3-4.

Rapid Reading of entire Odyssey with Homeric Study. *Five hours a week, one quarter, on application.* Credit, 1 course. Professor Sanders.

Courses Requiring No Knowledge of the Greek Language

The following courses in Greek literature and civilization are especially designed for those students who, without a reading knowledge of the Greek language, wish a broader culture or the necessary foundation to specialize in modern literature, history, art, etc. Where properly approved these courses may be counted a part of the major requirement in other departments.

14. A SURVEY OF GREEK LITERATURE. Sophomore, Junior, and Senior elective.

A study of the masterpieces of Greek literature in English translation with special reference to the contributions of Greek civilization to modern thought. *Five hours a week, fall quarter.* Credit, 1 course. Professor Bernard.

36. GREEK DRAMA IN ENGLISH TRANSLATION. Junior and Senior elective.

A course designed to embrace the origin, development, technique, and content of Greek Drama, with emphasis on tragedy. An interpretation of Greek life and thought as contributing to world progress. *Five hours a week, one quarter, on application.* Credit, 1 course. Professor Bernard.

53. PLATO IN ENGLISH TRANSLATION. Junior and Senior elective.

A course designed to lead the student into Platonic philosophy and literary criticism. *Five hours a week, one quarter, on application.* Credit, 1 course. Professor Bernard.

Courses for Graduates and Advanced Undergraduates

21-22. GREEK DRAMA. Prerequisite, Greek 6.

An extended reading and study of the Greek drama with lectures on the origin, history and structure of the drama. *Five hours a week, two quarters.* Credit, 2 courses. Professor Bernard.

43. THE GREEK NEW TESTAMENT. Prerequisite, Greek 7.

The Acts of the Apostles, study of grammar and diction, comparison with English versions; the Gospels, with selections from the Epistles; the principles of textual criticism, sources and history of the Greek text and the versions. *Five hours a week, one quarter, on application.* Credit, 1 course. Professor Bernard.

NOTE: Greek 14, 36, and 53 may also be taken as graduate courses. In such cases the scope of the work in them will be considerably expanded and concentrated on some special phase of the subject required.

Courses Primarily for Graduates

101-102-103. GREEK SEMINAR.

This course is devoted to the study in detail of particular authors or periods in Greek literature, the subject matter varying from year to year. It calls for wide reading in the Greek authors selected and in the critical literature concerning them, with oral and written reports. Lectures and conferences. Professor Bernard.

DEPARTMENT OF HISTORY AND GOVERNMENT

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph.D., *Kenan Professor of History and Government.*

HENRY MCGILBERT WAGSTAFF, Ph.D., *Professor of History.*

WILLIAM WHATLEY PIERSON, JR., Ph.D., *Professor of History and Government.*

ROBERT DIGGS WIMBERLY CONNOR, Ph.B., *Kenan Professor of History and Government.*

*FRANK PORTER GRAHAM, A.M., *Associate Professor of History.*

WALLACE EVERETT CALDWELL, Ph.D., *Associate Professor of History.*

CHESTER PENN HIGBY, Ph.D., *Associate Professor of History.*

ALBERT RAY NEWSOME, A.M., *Assistant Professor of History.*

HENRY THOMAS SHANKS, A.M., *Instructor in History.*

ROSSER HOWARD TAYLOR, A.M., *Instructor in History.*

DELBERT HAROLD GILPATRICK, A.M., *Instructor in History.*

* Absent on leave, 1923-1925.

Teaching Fellows in History, 1923-1924

Clarence Clifford Norton, A.M.
Benjamin Owens Dupree, A.B.

History

Courses for Undergraduates

1-2. FOUNDATIONS OF MODERN HISTORY.

A general course dealing with the fundamental factors in modern civilization in Europe and the United States. The emphasis of the course will rest upon the commercial revolution, European expansion, the Protestant Revolt, colonial and dynastic rivalry, the Old Regime, the French Revolution, the industrial revolution, the rise of Democracy, the growth of modern imperialism, and the course of modern international relations. Lectures, text-books, and readings. *Five hours a week, fall and winter, and winter and spring quarters.* Credit, 2 courses. Professors Hamilton, Wagstaff, Pierson, Connor, Caldwell, Higby, Newsome, and Messrs. Shanks, Taylor, and Gilpatrick.

3-4. ENGLISH HISTORY. Sophomore, Junior, and Senior elective.

The purpose of this course is to convey a good working knowledge of English history and broaden it into a survey of the part the Anglo-Saxon race has played in world history. Text-book, readings, and lectures. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Wagstaff.

5-6. ANCIENT HISTORY. Sophomore, Junior, and Senior elective.

A course dealing with the history of the Orient, Greece, and Rome to the time of Constantine. Particular attention will be paid to social and economic conditions and cultural and religious developments. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Caldwell.

7-8. AMERICAN HISTORY. Sophomore, Junior, and Senior elective.

A general survey of the history of the United States, European background, discovery and exploration, colonization, revolution, independence, federation, western expansion, democracy, slavery, civil war, reconstruction, business and politics, progressive movement, and world politics. Lectures, text-books, and readings. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Mr. Shanks.

9. HISPANIC-AMERICAN HISTORY. The Colonial Period and the Wars of Independence. Sophomore, Junior, and Senior elective.

In this quarter a general survey will be made of Spanish and Portuguese America from the establishment of colonial settlements through the wars of independence. A study of the transplantation of Hispanic civilization in language, customs, religion, trade, and political institutions; Indian relations; labor and social conditions; educa-

tion and industry; the causes and events of the struggles for independence. Lectures and readings. *Five hours a week, fall quarter.* Credit, 1 course. Professor Pierson.

10. HISPANIC-AMERICAN HISTORY: Development of Nationality in South America. Sophomore, Junior, and Senior elective.

The modern history of Argentina, Brazil, Chile, Uruguay, Paraguay, Peru, Bolivia and Ecuador. Attention will be directed to the establishment of these republics, the evolution of their political theory, the struggle for political stability, the exploitation of resources, the diplomatic and commercial relations with the United States and Europe, the international problems of South America, the contemporary progress in politics and society. Lectures and readings. Given in 1923-1924 and in alternate years. *Five hours a week, winter quarter.* Credit, 1 course. Professor Pierson.

11. HISPANIC-CARIBBEAN AMERICAN HISTORY: Hispanic North American and the Caribbean Countries. Sophomore, Junior, and Senior elective.

Emphasis in this course will be placed upon the same general factors as in History 10. The diplomatic and commercial relations of the United States and Mexico, the insular republics, the Central American countries, and Colombia, Panama, and Venezuela will receive special attention. Lectures and readings. Given in 1924-1925 and in alternate years. *Five hours a week, winter quarter.* Credit, 1 course. Professor Pierson.

Courses for Graduates and Advanced Undergraduates

31. HISTORY OF THE ORIENT AND EARLY GREECE.

An advanced course in the history of the Bronze Age in the Mediterranean, the beginning of civilization in Egypt, Babylonia, Syria and Palestine, and Crete, and the history of their development down to the time of the Persian Empire. Attention will be given to the hieroglyphic and cuneiform scripts, to economic conditions, government and law, artistic and literary achievements, and religion. Given in 1923-1924 and in alternate years. *Five hours a week, fall quarter.* Credit, 1 course. Professor Caldwell.

32. HISTORY OF GREECE.

A history of the classical periods of Ancient Greece; the Homeric Age, the Expansion of the Hellas, the Renaissance of the Aegean, the Fifth and Fourth Centuries to the death of Alexander. Particular attention will be given to the growth of democracy, social and economic aspects, artistic, literary, and religious developments. Given in 1923-1924 and in alternate years. *Five hours a week, spring quarter.* Credit, 1 course. Professor Caldwell.

33. HISTORY OF HELLENISTIC GREECE AND THE ROMAN REPUBLIC.

A survey of the world into which Rome entered, the political, economic, and social conditions of the Eastern Mediterranean, Hellenistic Art, literature, and religion, the establishment and growth of the Roman Republic, Roman expansion throughout the Mediterranean, the growth of Roman culture, the Roman Revolution, and the foundations of the Empire. Given in 1924-1925 and in alternate years. *Five hours a week, fall quarter.* Credit, 1 course. Professor Caldwell.

34. HISTORY OF THE ROMAN EMPIRE AND THE EARLY MIDDLE AGES.

A survey of history from Augustus to Charlemagne; the organization and administration of the Roman Empire, Social, economic, and religious conditions and developments, the collapse of ancient civilization, the Germanic invasions, the foundation of feudalism and the Medieval Church, Charlemagne, and the Empire. Given in 1924-1925 and in alternate years. *Five hours a week, spring quarter.* Credit, 1 course. Professor Caldwell.

35. MEDIAEVAL EUROPE.

To be omitted in 1924-1925.

36. THE RENAISSANCE.

To be omitted in 1924-1925.

37. THE PROTESTANT REVOLT.

A study of the religious, intellectual, political, and economic aspects of the Protestant Revolt, with detailed consideration of the sixteenth century organization and criticism of the Catholic Church; the religion and dogmas of Luther, Zwingli, Calvin, Knox, and Cranmer; the influence of nationalism and absolutism on the revolution; the Catholic counter-reformation; and the establishment of state churches. *Five hours a week, fall quarter.* Credit, 1 course. Professor Higby.

39. ENGLAND IN THE NINETEENTH CENTURY.

The purpose of this course is to effect an intensive treatment of a relatively short period of English History, that from 1815 to 1915. The course will develop England's national and imperial story, her international relations, and her contributions to the history of the age. Lectures and readings. *Five hours a week, spring quarter.* Credit, 1 course. Professor Wagstaff.

40. THE FRENCH REVOLUTION. Junior and Senior elective.

A course which deals with the causes—political, intellectual, social, and economic—events, and results of the French Revolution. Lectures, text-books, and readings. *Five hours a week, spring quarter.* Credit, 1 course. Professor Pierson.

42. THE NAPOLEONIC PERIOD. Junior and Senior elective.

A study of the chief events and movements of the Napoleonic period and of its immediate and permanent effects. *Five hours a week, spring quarter.* Credit, 1 course. Professor Higby.

43-44. MODERN EUROPE.

A study of the principal political, economic, and social movements in the history of Europe since 1815. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Higby.

51. COLONIAL AMERICAN HISTORY.

A general survey of the British colonies in America in the 17th century; European background; territorial claims and European expansion; race elements; social, economic, and political development. Text-book, lectures, readings, and reports. (Given in alternate years with History 52. Not offered in 1924-1925). *Five hours a week, winter quarter.* Credit, 1 course. Professor Connor.

52. COLONIAL AMERICAN HISTORY.

A general survey of the British colonies in America in the 18th century; imperial relations and colonial self-government; race elements; international rivalries; conquest and westward expansion; constitutional controversies; intercolonial relations and the development of union; revolution and independence; Federal relations and the adoption of the Constitution of the United States. Text-books, lectures, readings, and reports. (Given in alternate years with History 51. To be given 1924-1925). *Five hours a week, winter quarter.* Credit, 1 course. Professor Connor.

53. THE FEDERAL PERIOD. (1783-1815).

An intensive study is made of the government under the Articles of Confederation, the formation and adoption of the Federal Constitution, the nature of the Union, the launching of the government, Jeffersonian democracy, the westward movement, and the Second War for Independence. Text-book, lectures, readings, and reports. (Given in atlernate years with History 54. Not offered in 1924-1925). *Five hours a week, fall quarter.* Credit, 1 course. Professor Newsome.

54. THE ANTE-BELLUM PERIOD (1815-1860).

A social, economic, and political study of the period—the Westward Movement, State Rights, philosophy, Jacksonian democracy, development of Nationalism, controversy over negro slavery, the rest of Southern Rights, and the causes of the stroke for Southern Independence. Text-book, lectures, readings, reports. (Given in alternate years with History 53. To be given 1924-1925). *Five hours a week, fall quarter.* Credit, 1 course. Professor Newsome.

55. SECESSION AND CIVIL WAR.

Beginning with a rapid survey of the states' rights theory and of the secession movement before 1860, this course deals with the important constitutional, political, and economic aspects of the Civil War in the United States. Lectures, readings, and reports. (Given in alternate years with History 56. To be given in 1924-1925). *Five hours a week, spring quarter.* Credit, 1 course. Professor Hamilton.

56. THE RECONSTRUCTION PERIOD.

A course dealing with the constitutional, political, social, and economic aspects of the period from the close of the Civil War in 1865 to the restoration of home rule in the South in 1877. Lectures, readings, and reports. (Given in alternate years with History 55. Not given in 1924-1925). *Five hours a week, spring quarter.* Credit, 1 course. Professor Hamilton.

57. CONTEMPORARY AMERICAN HISTORY.

The History of the United States from 1876 to 1898. In this course emphasis will be placed upon the influence of the Civil War and Reconstruction upon subsequent American history; the war amendments in theory and practice; business and politics; the Granger movement; the currency question, the tariff legislation; the trust problem; foreign relations; the Spanish-American war and its results; party politics; political dissent, and interpretations of democracy. Lectures, text-books, and readings. (Given in alternate years with History 59. Not offered in 1924-1925). *Five hours a week, spring quarter.* Credit, 1 course. Professor Pierson.

58. CONTEMPORARY AMERICAN HISTORY.

Continuation of History 57. A course dealing with the political, economic, social and diplomatic history of the United States from 1898-1920. Conservatism, moderation, and radicalism in politics and economics; social legislation; American imperialism, and increased participation in international relations; the World War and the problems of peace. Lectures, text-books, and readings. (Given in alternate years with History 57. To be given in 1924-1925). *Five hours a week, spring quarter.* Credit, 1 course. Professor Pierson.

59-60. HISTORY OF NORTH CAROLINA.

General survey of colonization and territorial growth; colonial institutions; intercolonial and imperial relations, revolution and independence; constitutional and institutional development; Federal relations; civil war and reconstruction; recent political, economic, and educational developments. Lectures and readings. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Connor.

63-64. THE HISTORY OF THE WEST.

A study of the westward movement of civilization and the receding frontier in the area now comprising the United States from the period of exploration and settlement to the opening of the 20th Century: the conditions and processes of migration into the various areas; and the social, economic, and political significance of the frontier. Lectures, readings, discussions, reports. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Newsome.

Courses Primarily for Graduates

100-101-102. NORTH CAROLINA HISTORY.

A seminar course on the social, economic, and political history of the State of North Carolina. The course continues throughout the year, a weekly conference being held for the presentation of reports and discussion. *One hour a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Connor.

103-104-105. INTER-AMERICAN RELATIONS. Prerequisite, History 9-10.

A research course concerned with the diplomatic relations of the United States and the Hispanic-American countries. Some particular aspect will be selected for investigation. Lectures and reports. (Not given in 1923-1924). *One hour a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Pierson.

106-107-108. THE HISTORY OF CONGRESS.

A seminar course devoted to the history of the development of the Congress of the United States. *One hour a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Hamilton.

110-111-112. ANCIENT HISTORY.

A seminar in some phase of Ancient History. *One hour a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Caldwell.

113-114-115. MODERN EUROPEAN HISTORY.

A seminar in some phase of the Napoleonic period. *One hour a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Higby.

Government

Courses for Undergraduates

1-2. COMPARATIVE GOVERNMENT. Sophomore, Junior, and Senior elective.

In this course an intensive study will be made of the governmental and social institutions of the leading states of the modern world. The first quarter will be devoted to the treatment of the United States of America. In the second quarter the chief emphasis will be placed upon Great Britain and France, with outline studies of the institutions of other European countries. Text-books, lectures, discussions, and readings. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Hamilton.

Courses for Graduates and Advanced Undergraduates

30. THE ELEMENTS OF POLITICAL SCIENCE.

A general course in which a study is made of the principles of political science and of the important theories respecting the nature, origin, forms, and ends of the state and of government. An examination of the literature of the subject will be made, supplemented by students' reports on selected political theorists. Lectures, text-books, and readings. *Five hours a week, fall quarter.* Credit, 1 course. Professor Pierson.

34. THE CONSTITUTION OF THE UNITED STATES.

An elementary course in constitutional law, covering by means of lectures, text-book, and cases the fundamental principles of constitutional interpretation and practice in the United States. *Five hours a week, fall quarter.* Credit, 1 course. Professor Hamilton.

35. THE GOVERNMENT OF ENGLAND.

The objective in this course is a practical knowledge of the English Government as it operates, just how it came to be what it is. Local, national, and imperial aspects of England's governmental practice will receive attention. Resemblances and contrasts between her government and that of our own country will be pointed out for the practical lessons which the parallel supplies. Lectures and readings. *Five hours a week, spring quarter.* Credit, 1 course. Professor Wagstaff.

36-37. MODERN MUNICIPAL GOVERNMENT.

(Not offered in 1924-1925).

38. AMERICAN STATE GOVERNMENT.

A course dealing with the origins, development, and methods of the state governments. In connection with the course will be a special study of the government of North Carolina. *Five hours a week, spring quarter.* Credit, 1 course. Professor Connor.

Courses Primarily for Graduates

100-101-102. AMERICAN POLITICAL THEORY.

A seminar course respecting the political philosophy that has been developed in the United States. In the fall quarter the political theory of the colonial period and the American Revolution will be studied; in the winter quarter attention will be given to the theories associated with the formation of the Constitution and its early interpretation, the nature of the Union, and the slavery dispute; in the spring quarter the political theory of the Civil War and the contemporary United States will be considered. Lectures, readings, and reports. *Two hours a week, fall, winter, and spring quarters.* Credit, 2 courses. Professor Pierson.

106-107-108. MODERN INTERNATIONAL RELATIONS.

(Not given in 1923-1924).

109. SEMINAR COURSE.

A research course in a special field under the direction of a member of the department. Credit, 1 or 2 courses.

A certificate is granted to a student who has completed with credit the equivalent of nine courses in History and Government.

DEPARTMENT OF LATIN

GEORGE HOWE, Ph.D., *Professor of the Latin Language and Literature.*

GUSTAVE ADOLPHUS HARRER, Ph.D., *Associate Professor of Latin.*

SHIPP GILLESPIE SANDERS, A.M., *Assistant Professor of Classics.*

ROBERT ALLISON HOPE, A.B., *Instructor in Latin.*

Courses for Undergraduates

1-2. READINGS IN ROMAN LITERATURE. Freshman elective.

Course 1 is concerned with the translating of Latin, with work in vocabulary, and with a review of the chief principles of grammar. In Course 2 emphasis is placed on content and literary form. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professors Howe, Harrer, Sanders, and Mr. Hope.

3. SELECTIONS FROM PLINY AND TACITUS. Sophomore elective. Prerequisite, Latin 1-2.

The course is concerned with the translating of Latin; but the emphasis is also placed on the literary values of the works read, and on the political and social conditions of the period. *Five hours a week, fall, winter, or spring quarter.* Credit, 1 course. Professors Howe, Harrer, Sanders.

4. ROMAN LAW. Prerequisite, Latin 1-3. This course is a Sophomore requirement of A.B.-LL.B. students, and is open to other students who have satisfied the prerequisite.

This course deals with the general principles and the historical development of Roman law. The work will consist of the translation of selected passages in legal literature, readings, and lectures. *Five hours a week, winter quarter.* Credit, 1 course. Professor Harrer.

5. ROMAN SATIRE. Sophomore, Junior, and Senior elective. Prerequisite, Latin 1-3.

Readings from Horace, Petronius, Persius, Juvenal; occasional lectures. (This course alternate with Course 6). *Five hours a week, fall quarter.* Credit, 1 course. Professor Sanders.

6. CICERO'S LETTERS. Sophomore, Junior, and Senior elective. Prerequisite, Latin 1-3.

The reading of selected letters and discussions of the history and politics of the time. This course alternates with Course 5. (Not offered in 1924-1925). *Five hours a week, fall quarter.* Credit, 1 course. Professor Sanders.

11. TEACHER'S COURSE. Prerequisite, Latin 1-3.

Pronunciation, forms, syntax, prosody, the art of translating, methods of instruction. *Five hours a week, fall quarter.* Credit, 1 course. Professor Howe.

15. LATIN LITERATURE IN ENGLISH TRANSLATION. Sophomore, Junior, and Senior elective.

A study of masterpieces of Latin literature in English translation, with special reference to the contribution of Roman civilization to modern thought. This course is open to students who have no knowledge of the Latin language. *Five hours a week, winter quarter.* Credit, 1 course. Professor Howe.

16. ROMAN PUBLIC AND PRIVATE LIFE. Junior and Senior elective.

This course will deal with the public institutions, the political and social conditions, and with the private life of the Romans, their living conditions, amusements, manners and customs, religion, and mythology. *Five hours a week, spring quarter.* Credit, 1 course. Professor Harrer.

17. ROMAN ART AND ARCHAEOLOGY. Junior and Senior elective.

A study of Roman art in buildings, sculpture, bronze, and coins. By the help of pictures existing structures in Rome will be studied historically. *Five hours a week, winter quarter.* Credit, 1 course. Professor Harrer.

Courses for Graduates and Advanced Undergraduates

12. ROMAN HISTORICAL LITERATURE. Prerequisite, Latin 1-3.

A study of the structure, purposes, and methods of the most significant works. Translation and readings in English from the literature; reports; lectures. This course alternates with Course 13. (Not offered in 1924-1925). *Five hours a week, fall quarter.* Credit, 1 course. Professor Harrer.

13. ROMAN DRAMATIC LITERATURE. Prerequisite, Latin 1-3.

A study of the historical development of Latin comedy and tragedy; reading of selected plays. This course alternates with Course 12. *Five hours a week, fall quarter.* Credit, 1 course. Professor Harrer.

19. CAESAR. Prerequisite, Latin 1-3.

The political career and literary works of Cæsar will be studied, and selections from the Gallic and Civil Wars will be translated. *Five hours a week, winter quarter.* Credit, 1 course. Professor Harrer.

20. CICERO'S WORKS. Prerequisite, Latin 1-3.

A study of Cicero, as statesman and advocate. Selected letters, as well as a number of the orations, will be read. *Five hours a week, spring quarter.* Credit, 1 course. Professor Harrer.

51. THE LATIN EPIC. Junior and Senior elective.

The history of Latin Epic; detailed study of the Æneid. This course is open to students who have no knowledge of the Latin language. *Five hours a week, winter quarter.* Credit, 1 course. Professor Howe.

52. THE POETRY OF OVID. Junior and Senior elective.

Reading in English of the complete works of Ovid, and special critical study of the metamorphoses and of Roman elegy. *Five hours a week, spring quarter.* Credit, 1 course. Professor Howe.

Courses Primarily for Graduates

101-102-103. LATIN SEMINAR.

This course is devoted to the study in detail of patricular authors or periods in Roman Literature, the subject matter varying from year to year. It involves wide reading in the Latin authors and in the critical literature concerning them, with oral and written reports by the student. Lectures and conferences. For the year 1924-1925: Fall Quarter, Cicero (Professor Howe); Winter Quarter, Roman Elegiac Poets (Professor Howe); Spring Quarter, Tacitus (Professor Harrer). *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professors Howe and Harrer.

104. LATIN EPIGRAPHY.

The aim of the course is to acquire facility in the deciphering and translating of inscriptions, to study in detail a selection of significant inscription and their value in the field of Roman studies. *Five hours a week, fall quarter.* Credit, 1 course. Professor Harrer.

105. LATIN PALEOGRAPHY.

The course will include a study of the more important scripts, practice in decipherment, and the methods of textual criticism. *Five hours a week.* Credit, 1 course. Professor Harrer.

DEPARTMENT OF MATHEMATICS

*ARCHIBALD HENDERSON, Ph.D., D.C.L., LL.D., *Professor of Mathematics.*

JOHN WAYNE LASLEY, JR., Ph.D., *Associate Professor of Pure Mathematics.*

ALLAN WILSON HOBBS, Ph.D., *Associate Professor of Applied Mathematics.*

* Absent on leave on the Kenan Foundation, 1923-1924.

ARTHUR SIMEON WINSOR, A.M., *Assistant Professor of Mathematics.*
ERNEST LLOYD MACKIE, A.M., *Assistant Professor of Mathematics.*
EDWARD TANKARD BROWNE, A.M., *Assistant Professor of Mathematics.*
CLAYTON CARR EDWARDS, A.B., *Instructor in Mathematics.*
IRVING JOSEPH STEPHENSON, A.B., *Instructor in Mathematics.*
SHERMAN BRYAN SMITHEY, A.B., *Instructor in Mathematics.*
LEON MARR SAHAG, S.B., *Instructor in Mathematics.*
WILLIAM VANN PARKER, A.B., *Instructor in Mathematics.*

Fellow in Mathematics, 1923-1924

GASTON SWINDELL BRUTON, A.B.

Courses for Undergraduates

1. MATHEMATICAL ANALYSIS I. Required of Freshmen.

   A study of functions and their graphs, the limit notion, graphical treatment of rates, mean ordinates, maximum and minimum, areas, etc.—an introduction to the notions of the differential and integral calculus. Graphical solution of equations. *Five hours a week, every quarter.* Credit, 1 course. Professors Lasley, Mackie, Browne, Messrs. Edwards, Stephenson, Smithey, Sahag, Parker, and Bruton.

2. MATHEMATICAL ANALYSIS II. Required of Freshmen.

   Solution of right and oblique triangles with applications. Logarithms and their application to computation. Solution of equations. Trigonometric analysis, series, permutations, combinations, complex numbers. *Five hours a week, every quarter.* Credit, 1 course. Professors Lasley, Mackie, Browne, Messrs. Edwards, Stephenson, Smithey, Sahag, Parker, and Bruton.

3. ANALYTIC GEOMETRY. Sophomore, Junior, and Senior elective. Prerequisites, Mathematics 1 and 2.

   A course in the fundamentals of analytic geometry, the straight line, circle, parabola, ellipse, hyperbola, higher plane curves, transformations of coördinates, geometry of space. *Five hours a week, fall and spring quarters.* Credit, 1 course. Professor Mackie.

1E-2E-3E. UNIFIED MATHEMATICS FOR ENGINEERS. Required of Freshmen in engineering courses and in Chemistry.

This course is designed for engineering students and deals with college algebra, trigonometry, and analytic geometry, including an introduction to the differential and integral calculus. The fundamental purpose of this course is so to coördinate these subjects as to train students to handle readily practical problems in engineering. *Six hours a week, fall, winter, and spring quarters.* Credit, 1 course each. Professors Hobbs and Winsor, and Mr. Smithey.

4. DIFFERENTIAL CALCULUS. Prerequisites, Mathematics 1, 2, and 3.

A study of the differentiation process and its application to geometry, physics, and mechanics, including the notions of curvature, partial differentiation, envelopes, series, expansion of functions, etc. *Five hours a week, winter quarter.* Credit, 1 course. Professors Lasley and Mackie.

5. INTEGRAL CALCULUS. Prerequisite, Mathematics 4.

This course centers around the idea of the definite integral, considering in detail problems arising in geometry and the physical sciences, including length of curves, areas, volumes, moment of inertia, etc. *Five hours a week, spring quarter.* Credit, 1 course. Professor Lasley.

4E-5E-6E. CALCULUS FOR ENGINEERING STUDENTS. Required of Sophomores in engineering courses and in Chemistry (4E only for the latter). Prerequisite, Mathematics 3 or 3E.

The first quarter is devoted to a study of the derivative and its applications to geometry and mechanics, expansion of functions, partial differentiation; the second deals chiefly with the definite integral and its application; the third consists of engineering problems involving calculus, together with an elementary treatment of differential equations. *Six hours a week, fall, winter, and spring quarters.* Credit, 1 course each. Professors Hobbs and Winsor, and Mr. Smithey.

10. DIFFERENTIAL EQUATIONS. Prerequisite, Mathematics 5 or 5E.

This is a course both for students intending to specialize in mathematics and for students in advanced engineering, civil, electrical, and chemical. Among the subjects treated are singular solutions, applications to mechanics, geometry, and physics, linear equations with both constant and variable coefficients, equations involving more than two variables, partial differential equations, and spatial forms. *Five hours a week, fall quarter.* Credit, 1 course. Professor Mackie.

12. THEORETICAL MECHANICS. Prerequisite, Mathematics 5 or 5E.

An introductory course in mechanics employing the methods of the calculus. *Five hours a week, spring quarter.* Credit, 1 course. Professor Hobbs.

13. THEORY OF EQUATIONS. Prerequisite, Mathematics 5.

Indispensable for students intending to prosecute studies in the higher branches of pure mathematics. Such subjects as the solution of equations of higher degrees, transformations, determinants, elimination, invariants and covariants, and symmetric functions are treated in detail. The student is afforded a survey of the general problem and the basic principles of the formation, handling, and evolution of equations. *Five hours a week, winter quarter.* Credit, 1 course. Professor Browne.

Courses for Graduates and Advanced Undergraduates

52. ELEMENTARY PROJECTIVE GEOMETRY. Prerequisite, Mathematics 5.

The fundamental notions of projective geometry: projection, section perspectivity, etc. Both analytic and geometric methods are employed. Projective correspondence, involution, and general projective relations between one dimeusional forms are studies. *Five hours a week, fall quarter.* Credit, 1 course. Professor Lasley.

53. ADVANCED PROJECTIVE GEOMETRY. Prerequisite, Mathematics 52.

General homogeneous coördinates, collineation, correlation, homology, projective correspondence between two dimensional forms are studied. A projectiou theory of conics is developed, also the notions of line geometry. *Five hours a week, winter quarter.* Credit, 1 course. Professor Lasley.

54. ANALYTIC GEOMETRY OF SPACE. Prerequisite, Mathematics 5.

Treats of the spatial relations from the analytical standpoint. Deals with quadratic surfaces, envelopes, foci, quadri-planar and tetrahedral coördinates, developable surfaces, curves in space, curvature of surfaces, higher surfaces, etc. *Five hours a week, spring quarter.* Credit, 1 course. Professor Lasley.

56-57-58. GRAPHICAL ANALYSIS. Prerequisite, Mathematics 5 or equivalent.

A study of alignment charts and of equations determined from empirical data, with a brief treatment of the method of least squares. *Three hours a week, fall, winter, and spring quarters.* Credit, ½ course. Professor Winsor.

60. DYNAMICS. Prerequisite, Mathematics 10 and 12.

Differential equations of motion, equations of orbits, D'Alembert's principle, motion of a rigid body. *Five hours a week, spring quarter.* Credit, 1 course. Professor Hobbs.

61. VECTOR ANALYSIS. Prerequisite, Mathematics 60.

A study of some of the general principles of mechanics in the language of vectors. *Five hours a week, spring quarter.* Credit, 1 course. Professor Hobbs.

62. FOUNDATIONS OF GEOMETRY. Prerequisite, Mathematics 52.

A course designed to meet the needs of students experienced in mathematical thinking. A survey of the contributions of Pasch, Peano, Hilbert, and their school to our knowledge of the foundations of geometry; a study of the axioms, of systems of geometry, etc. (Not given in 1924-1925). *Five hours a week, winter quarter.* Credit, 1 course. Professor Henderson.

Courses Primarily for Graduates

101. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. Prerequisite, Mathematics 10.

Complex numbers, differentiation and integration, conformal mapping, linear fractional transformations, single and multiple valued functions. *Five hours a week, spring quarter.* Credit, 1 course. Professor Mackie.

104. THEORY OF NUMBERS. Prerequisite, Mathematics 13.

An elementary course in the study of the properties of the rational integers, including the study of the question of divisibility, greatest common divisor of two or more integers, solution of simple congruences, quadratic residues, quadratic reciprocity law, representation of integers by quadratic forms, equivalence of quadratic forms, etc. *Five hours a week, fall quarter.* Credit, 1 course. Professor Browne.

105. DIFFERENTIAL GEOMETRY. Prerequisites, Mathematics 10 and 54.

A study of the metric differential geometry of curves, surfaces, and curves on surfaces, systems of curves defined by differential equations, surfaces given by two quadratic differential forms. *Five hours a week, spring quarter.* Credit, 1 course. Professor Lasley.

106. INTRODUCTION TO THE THEORY OF RELATIVITY. Prerequisites, Mathematics 10 and 12.

In this course the essential features of the special and the general relativity theories of Einstein are set forth from the mathematical point of view. Particular study is made of the Lorentz transformation, the theory of tensors, and the absolute differential calculus. *Five hours a week, winter quarter.* Credit, 1 course. Professor Henderson.

108. MODERN HIGHER ALGEBRA. Prerequisite, Mathematics 13.

Polynomials and their fundamental properties, determinants, theory of linear dependence, linear equations, matrices, invariants, bilinear and quadratic forms. *Five hours a week, spring quarter.* Credit, 1 course. Professor Browne.

109. ELEMENTS OF NON-EUCLIDEAN GEOMETRY. Prerequisite, Mathematics 52.

The subject is treated chronologically. The contributions of Bolyai, Lobachewsky, Riemann, Cayley, Klein are studied, analyzed, and compared. *Five hours a week, fall quarter.* Credit, 1 course. Professor Henderson.

115. SEMINAR.

Reading and research in Mathematics conducted by members of the department.

DEPARTMENT OF MUSIC

Paul John Weaver, B.A., A.A.G.O., *Professor of Music.*
Theodore Frank Fitch, A.B., *Instructor in Music.*
Frederick Hard, A.B., *Instructor in Music.*
Lonnie Ray Sides, A.B., *Instructor in Music.*

Courses for Undergraduates

2-3-4. APPRECIATION OF MUSIC. Junior and Senior elective.
An illustrated course primarily for students who have had little or no musical training. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Weaver.

7-8-9. SIGHT-SINGING AND EAR-TRAINING. Junior and Senior elective.
A course in the reading of music notation, from the standpoint of both eye and ear. No prerequisites or previous training are necessary for number 7; students will be admitted to number 8 at the beginning of the winter quarter or number 9 at the beginning of the spring quarter, who have had the equivalent of the work covered in the course up to that point. Students registered for this course who become members of the University Glee Club will be allowed to count their club rehearsal time as the outside practice and preparation for this course. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Mr. Fitch.

10-11-12. HISTORY OF MUSIC. Junior and Senior elective.
A study of the historical development of music. The work of each term is separate from that of the other terms, and students may enter the course at the beginning of any term. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Weaver.

20-21-22. HARMONY. Junior and Senior elective.
A beginner's course in elementary harmony. Prerequisite, ability to read music notation. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Weaver.

23-24-25. ORCHESTRATION. Junior and Senior elective.
A course in the study of the principles and practice of instrumentation for band and orchestra, preceded by a review of harmonic principles. Orchestra and band music will be heard, analyzed, and studied, and music will be arranged for orchestra and band. Students registered for this course who become members of the University Band or the University Orchestra will be allowed to count their Band or Orchestra rehearsal time as the outside practice and preparation for this course. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Messrs. Hard and Sides.

26-27-28. COUNTERPOINT. Junior and Senior elective.

Prerequisite, one year of harmony (courses 20, 21, and 22, or their equivalent). *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Weaver.

Special Courses

A. INDIVIDUAL INSTRUCTION IN PIANO.

One or more individual instruction periods a week, hour to be arranged with the instructor. Registration should be made with the instructor, not with the University Registrar. *Fee, $1.00 a lesson.* No credit. Mr. Fitch.

B. INDIVIDUAL INSTRUCTION IN VOICE.

One or more individual instruction periods a week, hour to be arranged with the instructor. Registration should be made with the instructor, not with the University Registrar. *Fee, $1.00 a lesson.* No credit. Mr. Fitch.

C. INDIVIDUAL INSTRUCTION IN VIOLIN.

One or more individual instruction periods a week, hour to be arranged with the instructor. Registration should be made with the instructor, not with the University Registrar. *Fee, $1.00 a lesson.* No credit. Mr. Hard.

D. INDIVIDUAL INSTRUCTION IN BAND INSTRUMENTS.

One or more individual instruction periods a week on any brass, wood-wind, or percussion instrument, hour to be arranged with the instructor. Registration should be made with the instructor, not with the University Registrar. *Fee, $1.00 a lesson.* No credit. Mr. Sides.

NOTE: The following regulations govern individual instruction in music courses A, B, C, and D.

1. Practise rooms and periods are assigned by the instructor. Fee for one daily practise period, $3.00 a term.

2. After registration with the instructor, all fees for the term must be paid to the University Treasurer and receipts for such fees must be returned to the instructor before the first lesson period.

3. Regularly assigned lessons missed by the student without previous arrangement with the instructor are not to be made up or refunded for, except with the permission of the head of the department.

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A.M., B.D., *Kenan Professor of Philosophy.*

PAUL ELLIOTT GREENE, A.M., *Assistant Professor of Philosophy.*

HAROLD ROBERT SMART, Ph.D., *Assistant Professor of Philosophy.*

Courses for Undergraduates

1-2. HISTORY OF PHILOSOPHY. Open to Juniors, Seniors, and Graduates.

The history of philosophy from its origin among the Greeks to the present time; the various philosophical systems in their relation to the science and general civilization of the ages to which they belong, and their application to social, political, and educational problems. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Smart.

4-5-6. ELEMENTARY AESTHETICS. Junior and Senior elective, open to Sophomores by permission.

The history and philosophy of the fine arts. *Five hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Greene.

7-8-9. LOGIC.

Textbook and lectures. This course aims to trace the early movement of intelligence that lays the foundation of the conscious logical process. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Smart.

10-11-12. LOGIC.

The aim of this course is to explore the conscious logical process as expressed in civilization. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Williams.

13-14. ETHICS. Open to upper-classmen.

A study of moral ideas and the principles of human conduct. *Three hours a week, fall and winter quarters.* Credit, 1 course. Professor Greene.

15-16. COMPARATIVE RELIGION. Open to upper-classmen.

A study of the historical development of religion. *Three hours a week, winter and spring quarters.* Credit, 1 course. Professor Greene.

30. PLATO. Open to upper-classmen.

A detailed study of Plato's philosophy. *Three hours a week, fall quarter.* Credit, ½ course. Professor Greene.

31. ARISTOTLE. Open to upper-classmen.

A detailed study of Aristotle's philosophy. *Three hours a week, spring quarter.* Credit, ½ course. Professor Greene.

35. MEDIEVAL PHILOSOPHY. Open to upper-classmen and graduates.

From the rise of Neo-Platonism through Scholasticism to the death of Dante. *Three hours a week, spring quarter.* Credit, ½ course Professor Smart or Professor Greene.

40-41-42. CONTEMPORARY PHILOSOPHICAL THOUGHT. Prerequistes, Philosophy 1-2, or equivalent work in other departments.

The evaluation and criticism of such contemporary philosophical movements as are represented by the names of Bradley, Bosanquet, Royce, Alexander, James, Dewey, and Bergson. Lectures, reports, and discussions. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Smart.

Courses for Graduates

101-102-103. KANT AND HIS PREDECESSORS. The Problem of Modern Philosophy.

A study of the works of Locke, Berkeley, Hume, Leibniz, and Spinoza in their relation to Kant, followed by a careful study of the Kantian philosophy. Emphasis in this course will be placed upon those phases of modern philosophy of special interest to the students themselves, rather than on following a set program. *Three hours a week, fall, winter, and spring quarters.* Credit, 1½ courses. Professor Smart.

140-141-142. SEMINARY IN PHILOSOPHY.

Conducted by the Department. Hours and subject are arranged at the beginning of the year.

DEPARTMENT OF PHYSICS

*ANDREW HENRY PATTERSON, A.M., *Professor of Physics.*
OTTO STUHLMAN, JR., Ph.D., *Associate Professor of Physics.*
PAUL HARRISON DIKE, Ph.D., *Acting Associate Professor of Physics.*
JOHN FENTON DAUGHERTY, A.B., *Instructor in Physics.*
WILTON CATHEY, A.B., *Instructor in Physics.*

Teaching Fellow in Physics, 1923-1924

DARE ABERNETHY WELLS, B.S. in E.E.

Assistants in Physics, 1923-1924

MILTON LAU BRAUN, B.A.
GEORGE THOMAS WOOD, JR.

(For description of Physical Laboratories, see page 37).

Courses for Undergraduates

1. GENERAL PHYSICS. PART 1. Sophomore, Junior, and Senior elective. Prerequisite, Mathematics 1-2.
Mechanics of solids, liquids, and gases; Sound and Heat. Lectures. Text-book, Kimball's College Physics; problems; laboratory work. *Six hours a week, fall or winter quarter. Laboratory fee, $2.50.* Credit, 1 course. Professors Patterson, Stuhlman, Dike, and Messrs. Daugherty and Cathey.

* Absent on leave on the Kenan Foundation, 1923-1924.

2. GENERAL PHYSICS. PART 2. Sophomore, Junior, and Senior elective. Prerequisites, Mathematics 1-2, and Physics 1.

Light, Electricity, and Magnetism. Lectures; text-book, Kimball; problems; laboratory work. *Six hours a week, winter or spring quarter. Laboratory fee, $4.00.* Credit, 1 course. Professors Patterson, Stuhlman, Dike, and Messrs. Daugherty and Cathey.

1-2-3E. PHYSICS FOR ENGINEERING STUDENTS. Required of Engineering Sophomores. Prerequisite, Mathematics 1-2-3E or equivalent.

This is a course given with special reference to the needs of students of engineering, both in the lecture work and in the laboratory, while a great deal of problem work is given on subjects dealing with engineering. *Four hours a week, fall, winter, and spring quarters. Laboratory fee, $2.50 a quarter.* Credit, 2 courses. Professors Patterson, Stuhlman, Dike, and Messrs. Daugherty and Cathey.

3-4. ELECTRICITY AND MAGNETISM. Junior and Senior elective. Prerequisite, Mathematics 1-2.

A general course, but intended especially for medical students. Lectures, text-book, laboratory work. *Three hours a week, fall and winter quarters.* Credit, 1 course. Professor Patterson.

14. ASTRONOMY. Junior and Senior elective. Prerequisite, Physics 1-2.

A general course in descriptive and historical astronomy; lectures and recitations, with use of lantern slides, star-maps, telescope, etc. *Five hours a week, fall quarter.* Credit, 1 course. Professor Patterson.

Courses for Graduates and Advanced Undergraduates

5. HEAT AND THERMODYNAMICS. Prerequisites, Physics 1-2, and Mathematics 4.

Lectures, problems, and laboratory work. *Five hours a week, winter quarter. Laboratory fee, $2.50.* Credit, 1 course. Professor Patterson or Professor Dike.

6. MECHANICS AND WAVE MOTION. Prerequisites, Physics 1-2, and Mathematics 4.

Lectures, problems, and laboratory work. *Five hours a week, spring quarter. Laboratory fee, $2.00.* Credit, 1 course. Professor Stuhlman.

7. MODERN ELECTRICAL THEORY. Prerequisites, Physics 1-2, and Chemistry 1.

Lectures and laboratory work; the electron theory, atomic structure, radioactivity, etc. *Five hours a week, spring quarter.* Credit, 1 course. Professor Patterson.

8. ADVANCED ELECTRICITY AND MAGNETISM. Prerequisites, Physics 1-2, and Mathematics 4.

An introduction to the mathematical treatment of these subjects. *Five hours a week, spring quarter. Laboratory fee, $2.00.* Credit, 1 course. Professor Patterson or Professor Stuhlman.

9. OPTICS. Prerequisites, Physics 1-2, and Mathematics 4.

A treatment of the fundamental principles of geometrical and physical optics; lectures, problems, and laboratory work. *Five hours a week, fall quarter. Laboratory fee, $2.50.* Credit, 1 course. Professor Stuhlman.

10-11. INTRODUCTION TO MATHEMATICAL PHYSICS. Prerequisites, Mathematics 4 and 10, or their equivalent.

(Offered in 1924 and alternate years). *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Stuhlman.

12. ADVANCED GENERAL LABORATORY.

This course affords an opportunity for further training and experimental study in physics not given in other courses. *Any quarter. Two laboratory periods, of three hours each, a week. Laboratory fee, $5.00.* Credit, ½ course. Professor Patterson, Professor Stuhlman, or Professor Dike.

15-16. RESEARCH FOR SENIORS.

Credit, 1 or 2 courses. Professors Patterson, Stuhlman, and Dike.

Courses Primarily for Graduates

115ab. ATOMIC STRUCTURE. Prerequisites, Physics 7, and Mathematics 4.

A critical survey of the experimental and theoretical evidence in various branches of physics for the present theories of the structure of atoms and molecules. A reading knowledge of German is required. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Patterson, or Professor Stuhlman.

116. MATHEMATICAL THEORY OF ELECTRICITY AND MAGNETISM. Prerequisites, Mathematics 4 and 10.

General electrostatic theory; ideal electric fields; condensers with homogeneous and non-homogeneous dielectrics; general laws of conduction; thermal effects; magnetostatic fields; electro-magnetic phenomena; electric waves. *Five hours a week.* Credit, 1 course. Professor Stuhlman.

117. THEORY OF LIGHT. Prerequisites, Mathematics 4 and 10.

1. Geometrical optics. 2. Physical optics. 3. Optical properties of crystals and metals. 4. Magneto-optics and radiation. A reading knowledge of French and German is required. *Five hours a week.* Credit, 1 course. Professor Stuhlman.

118. THEORY OF RELATIVITY. Prerequisites, Mathematics 4 and 10.

A critical study of the experiments leading to the development of the theory of relativity; Einstein's work; study of contemporary articles on the subject. A reading knowledge of German is required. *Five hours a week.* Credit, 1 course. Professor Patterson.

NOTE.—Courses in advanced Analytic Mechanics are offered by the Department of Mathematics.

120. RESEARCH.

Intended for applicants for advanced degrees. Experimental work. Subject must be assigned or approved by the professor in charge. A reading knowledge of French and German is required. Professors Patterson, Stuhlman, and Dike.

DEPARTMENT OF PSYCHOLOGY

JOHN FREDERICK DASHIELL, Ph.D., *Professor of Psychology.*

HARRY WOLVEN CRANE, Ph.D., *Professor of Psychology.*

FLOYD HENRY ALLPORT, Ph.D., *Associate Professor of Psychology.*

WILLIAM WHITE ROGERS, A.B., *Instructor in Psychology.*

Teaching Fellows in Psychology, 1923-1924

WALTER LIVINGSTON HINMAN, A.B.

HERMAN WILKES MARTIN, A.B.

Assistants in Psychology, 1923-1924

RUDOLPH SAMUEL MATTHEWS.

ARTHUR BENJAMIN CULBERTSON, A.B.

Courses for Undergraduates

1-2. GENERAL PSYCHOLOGY. Sophomore, Junior, and Senior elective.

The aim of the course is to present the essential phenomena of psychology, and the various methods of approach. Emphasis is placed on the organic relationships within the whole field. Lectures, textbooks, laboratory. *Six hours a week, fall and winter, or winter and spring quarters. Laboratory fee, $1.00 a quarter.* Credit, 2 courses. Professors Dashiell and Allport.

Courses for Graduates and Advanced Undergraduates

22. THE PSYCHOLOGY OF LEARNING. Prerequisite, Psychology 1-2.

An analysis of human training; its nature, means, and possibilities. A reading survey will be made of the outstanding experimental work on these lines. The aim will be to get an accurate and scientific notion of the subject, with possibilities of application to various fields of applied psychology, including education and industry. Readings, discussions, experiments. *Five hours a week, spring quarter. Laboratory fee, $1.00.* Credit, 1 course. Professor Dashiell.

25. ANIMAL PSYCHOLOGY. Prerequisite, Psychology 1-2.

Development of mind in the animal. Study of behavior as analyzable into tropisms, reflexes, instincts, habits, learning capacities, etc. Comparisons between different phyla of animals and between animals and man. Texts, lectures, and experiments. *Five hours a week, winter quarter. Laboratory fee, $1.00.* Credit, 1 course. Professor Dashiell.

26. CHILD PSYCHOLOGY. Prerequisite, Psychology 1-2.

The development of behavior in the child. The chief subdivisions to be studied are the original behavior equipment, the growth and maturation of structure, the acquisition of habits, the development of capacity, and the formation of interests. Attention will be given to conflict of interests and mental hygiene. This course is the natural introduction to courses in educational psychology. Lectures, readings, and experiments with children. *Five hours a week, fall quarter. Laboratory fee, $1.50.* Credit, 1 course. Professor Allport.

30. SOCIAL PSYCHOLOGY. Prerequisite, Psychology 1-2.

An introduction to the study of the individual in his social aspects and social behavior. The topics include social drives and habits, language, facial expression, group and crowd phenomena, and social conflict and adjustment. The latter part of the course will apply the laws of social psychology in the fields of sociology, economics, and other social sciences. Lectures, readings, and reports of current social phenomena. *Five hours a week, fall quarter.* Credit, 1 course. Professor Allport.

35. ECONOMIC PSYCHOLOGY: INDUSTRIAL AND VOCATIONAL. Prerequisite, Psychology 1-2.

There will be two main divisions of the course, as follows: (1) The adjustment of the worker to his work—including industrial training effects of incentive, monotony, and fatigue; motion study; and mental hygiene in industry. (2) The selection of personnel for various kinds of work, with the industrial use of tests of intelligence and personality. An outline of vocational psychology will be given, and the psychology of salesmanship discussed. Lectures, experiments, readings. *Five hours a week, spring quarter. Laboratory fee, $1.50.* Credit, 1 course. Professor Allport.

36. ECONOMIC PSYCHOLOGY: ADVERTISING. Prerequisite, Psychology 1-2.

An attempt is made to present systematically those aspects of psychology that will aid the advertiser more effectively to construct and present his advertisements. While aiming to give information of practical value, the emphasis is placed upon the establishing of a point of view that will be of assistance in the development of a general technique on the part of the advertiser. *Five hours a week, spring quarter. Laboratory fee, $2.00.* Credit, 1 course. Professor Crane.

45. ABNORMAL PSYCHOLOGY: FEEBLE-MINDEDNESS. Prerequisite, Psychology 1-2.

Presentation of the psycho-neural aspects of feeble-mindedness in general, and of the various types, together with their importance in relation to the problems of education, dependency, and delinquency. There will be discussion and demonstration of the various clinical methods of determination and classification of feeble-mindedness. *Five hours a week. Laboratory fee, $1.00.* Credit, 1 course. Professor Crane.

46. ABNORMAL PSYCHOLOGY: PSYCHONEUROSES AND PSYCHOSES. Prerequisite, Psychology 1-2.

A study is made of the more important deviations from the normally reacting and experiencing human organism. Attention is given to the sensory, imaginal, emotional, motor, etc., abnormalties and to the occurrence of these in the various psychoses. Brief surveys are given of the methods of clinical psychology and of psychotherapy. *Five hours a week, spring quarter. Laboratory fee, $1.00.* Credit, 1 course. Professor Crane.

51-52-53. EXPERIMENTAL PROBLEMS.

To the student who finds himself especially interested in some particular problem of psychology, perhaps as growing out of the subject matter of one of the preceding courses, encouragement and opportunity are here offered for investigative study. May be elected any quarter, and for one, two, or three quarters. *Fall, winter, and spring quarters. Laboratory fee, $2.00 a quarter.* Credit, 1 course each. Professors Dashiell, Crane, and Allport.

Courses Primarily for Graduates

101. ADVANCED EXPERIMENTAL PSYCHOLOGY.

A training course in the technique of psychological experimentation and research, to acquaint the student both with methods and with typical forms of apparatus. A survey will be made of the experimental study of the various motor, sensory, thinking, and emotional functions, including both introspective and behavioristic approaches. *Fall quarter. Laboratory fee, $2.00.* Credit, 1 course. Professor Dashiell.

102-103. RESEARCH IN PSYCHOLOGY. Prerequisite, Psychology 101.

Opportunity will be given for the experimental investigation of special problems along the line of the individual student's interests. The personal and material resources of the department are here especially offered. *Winter and spring quarters. Laboratory fee, $2.00 a quarter.* Credit, 1 course each. Professors Dashiell, Crane, and Allport.

105. ADVANCED GENERAL PSYCHOLOGY.

An intensive study is made of the general field of psychology. Emphasis is placed upon the neural mechanism as a basis of understanding both the mental and the reaction phenomena of psychology. *Five hours a week, fall quarter.* Credit, 1 course. Professor Crane.

106. CONTEMPORARY PSYCHOLOGICAL TENDENCIES.

A more or less systematic survey of the more outstanding recent and contemporary movements in modern psychology. Readings assigned in the works of Wundt and Tichener, James, Hall, McDougall and Stout, Thorndike, Pawlow, Watson, Cannon, Freud, and Jung, and perhaps others. *Five hours a week, spring quarter.* Credit, 1 course. Professor Dashiell.

107. THE PSYCHOLOGY OF PERSONALITY.

This course defines personality as the aggregate of persistent behavior traits. The method of approach is dynamic and causal. Inheritance of capacities, dispositions, and defects, genetic development, and psychoanalytic method will be given special attention. The fundamental traits will be classified and studied by reference to case material. Types, or trait-patterns, will be discussed. Insight into the hygiene and improvement of the personality will be the practical aim of the course. Readings, discussions, analyses of cases. *Five hours a week, winter quarter.* Credit, 1 course. Professor Allport.

The student is referred also to courses in Educational Psychology given by Professors Jordan and Trabue in the Department of Education, numbers 20, 43, 64, and 110.

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORTON DEY, Ph.D., *Professor of Romance Languages.*

OLIVER TOWLES, Ph.D., *Professor of French.*

STURGIS ELLENO LEAVITT, Ph.D., *Professor of Spanish.*

HENRY DEXTER LEARNED, Ph.D., *Associate Professor of Romance Languages.*

HOWARD RUSSELL HUSE, Ph.B., *Associate Professor of Romance Languages,* Secretary of the Department.

HERMAN HENRY STAAB, A.M., *Assistant Professor of Romance Languages.*

ALBERT SHAPIRO, Ph.D., *Assistant Professor of Spanish.*

FRANK JOHN HARONIAN, M.A., *Instructor in French.*

MARTIN KAHAO BROOKS, A.M., *Instructor in Romance Languages.*

HARRY SYLVANUS VANLANDINGHAM, A.M., *Instructor in French.*

THOMAS JAMES WILSON III, A.B., *Instructor in French.*

FREDERICK JAMES HURLEY, A.B., *Instructor in Spanish.*

THOMAS MORTIMER MCKNIGHT, A.B., *Instructor in Spanish.*

JOHN CORIDEN LYONS, A.M., *Instructor in French.*

ALBERT WILDER THOMPSON, A.M., *Instructor in French.*

WYATT ANDREW PICKENS, A.M., *Instructor in Spanish.*

THOMAS EWELL WRIGHT, A.B., *Instructor in French.*

Teaching Fellows in Romance Languages, 1923-1924

JOHN LEROY SMITH, A.B.

STERLING AUBREY STOUDEMIRE, A.B.

French

Courses for Undergraduates

1-2. ELEMENTARY COURSE.

Essentials of French Grammar. Special drill in pronunciation. It is aimed to make this course as practical as possible, with much oral work. This course may be counted for credit by those only who fulfill the requirements for the degree in two other foreign languages, and provided it is followed by French 3-4. Course 2 will be given in the fall of 1924 also. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professor Learned and Messrs. Haronian, VanLandingham, Wilson, Lyons, Thompson, and Wright.

NOTE: No student is permitted to take French 1 or 2 and Spanish 1 or 2 at the same time.

3-4. CONTINUATION OF COURSE 1-2. Freshman and Sophomore elective.

Reading of modern French literature, frequent composition, and dictation. Course 4 will be given in the fall of 1924 also. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professors Huse and Staab, and Messrs. Haronian, Brooks, VanLandingham, Wilson, Lyons, Thompson, and Wright.

5. INTRODUCTION TO FRENCH LITERATURE. Sophomore, Junior, and Senior elective. Prerequisite, French 3-4.

Introduction to the study of French literature. A general survey of French literature during the 17th century, with some reference to preceding literary movements. Reading of plays of Corneille, Racine, and Molière. *Five hours a week, every quarter.* Credit, 1 course. Professors Dey, Towles, Learned, Huse, and Mr. VanLandingham.

6. MODERN FRENCH LITERATURE. Sophomore, Junior, and Senior elective. Prerequisite, French 5.

A general survey of French literature since the classical period, with special stress on the 19th century. *Five hours a week, every quarter.* Credit, 1 course. Professor Towles.

7. FRENCH CONVERSATION AND COMPOSITION. Junior and Senior elective. Prerequisite, French 5.

The object of this course is to provide students with an opportunity to acquire practice in spoken French. Discussions in French on subjects of general interest. Composition and outside reading. *Five hours a week, fall or spring quarter.* Credit, 1 course. Mr. Haronian.

8. FRENCH PHONETICS. Junior and Senior elective. Prerequisite, French 5.

A detailed study of the French vowel and consonant sounds by the phonetic method. This course should be elected by those who intend to teach French. *Three hours a week, every quarter.* Credit, ½ course. Professor Dey.

9. COMMERCIAL FRENCH. Open to students in the School of Commerce only. Prerequisite, French 5.

The object of this course is to give the student practical training in modern French. Newspaper and magazine articles dealing with the life and customs of the country will be read. Practice in social and commercial correspondence. This course will be largely conducted in French. *Five hours a week, fall or spring quarter.* Credit, 1 course. Professor Staab.

Courses for Graduates and Advanced Undergraduates

11-12. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY. Prerequisite, French 6.

Classicism: Molière, Corneille, Racine, etc. Lectures, reading, reports. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Towles.

13. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY. Prerequisite, French 6.

Voltaire, Montesquieu, Rousseau, les Encyclopédistes. A study of the literary movement of the century and of the origins of romanticism. *Five hours a week, fall quarter.* Credit, 1 course. Professor Huse.

15. THE FRENCH ROMANTIC MOVEMENT. Prerequisite, French 6.

French literature from 1800 to 1850, with special stress on the works of the romantic poets, Lamartine, Hugo, Vigny, and Musset. Lectures, reading, reports. *Five hours a week, fall quarter.* Credit, 1 course. Professor Dey.

16. FRENCH LITERATURE SINCE 1850. Prerequisite, French 6.

A study of the later literary movements of the 19th century, with some emphasis on the contemporary period. Lectures, reading, reports. *Five hours a week, winter quarter.* Credit, 1 course. Professor Dey.

18. THE FRENCH DRAMA. Prerequisite, French 6.

A study of the development of the drama in France. Lectures, reading, reports. *Five hours a week, winter quarter.* Credit, 1 course. Professor Huse.

19. THE FRENCH NOVEL. Prerequisite, French 6.

A study of the development of the novel in France. Lectures, reading, reports. (Offered in 1924-1925 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Dey.

24. FRENCH POETRY. Prerequisite, French 6.

A study of French lyric verse, beginning with Villon. Lectures, reading, reports. *Five hours a week, spring quarter.* Credit, 1 course. Professor Huse.

Courses Primarily for Graduates

101. STUDIES IN ROMANTICISM. Prerequisite, French 15.
Intensive study of one author. Topic for 1923-1924: Victor Hugo. (Omitted in 1924-1925; offered in alternate years). *Five hours a week, fall quarter.* Credit, 1 course. Professor Dey.

105-106. THE SIXTEENTH CENTURY.

Origins of the Renaissance movement. Italian and French Humanism. The Reformation. Marot, Rabelais, Calvin, the Pléiade, Montaigne. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Towles.

121abc. OLD FRENCH.

Reading of the oldest texts: La Chanson de Roland; Aucassin et Nicolette; Chrétien de Troyes. Lectures on French Phonology and Morphology. *Three hours a week, fall, winter, and spring quarters.* Credit, 2 courses. Professor Learned.

125. PROVENCAL.

A study of the ancient language and literature of Provence. The poetry of the Troubadours. *Five hours a week, spring quarter.* Credit, 1 course. Professor Learned.

131. INTRODUCTION TO LINGUISTIC SCIENCE.

Vowel measurements. Phonetic alphabets. Special attention to the pronunciation of French. *Spring quarter.* Credit, 1 course. Professor Dey.

140. RESEARCH.

Research in a special field under the direction of a member of the department.

Spanish

Courses for Undergraduates

1-2. ELEMENTARY COURSE.

Essentials of Spanish grammar. Special drill in pronunciation. Reading of selected texts, with much oral drill. This course may be counted for credit by those only who fulfill the requirements for the degree in two other foreign languages, and provided it is followed by Spanish 3-4. Course 2 will be given in the fall of 1924 also. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professors Shapiro and Staab, and Messrs. McKnight and Pickens.

NOTE: No student is permitted to take Spanish 1 or 2 and French 1 or 2 at the same time.

3-4. CONTINUATION OF COURSE 1-2. Freshman and Sophomore elective. Prerequisite, Spanish 1-2.

Reading of modern Spanish literature, composition, and dictation. Course 4 will be given in the fall of 1924 also. *Five hours a week, fall and winter, or winter and spring quarters.* Credit, 2 courses. Professor Staab, Messrs. Hurley and McKnight.

5. INTRODUCTION TO SPANISH LITERATURE. Sophomore, Junior, and Senior elective. Prerequisite, Spanish 3-4.

Introduction to the study of Spanish literature. A general survey of Spanish literature during the 16th and 17th centuries, with some reference to preceding literary movements. Reading of selections from Lope de Vega, Cervantes, Calderón, etc. *Five hours a week, every quarter.* Credit, 1 course. Professors Leavitt and Shapiro.

6. MODERN SPANISH LITERATURE. Sophomore, Junior, and Senior elective. Prerequisite, Spanish 5.

A general survey of Spanish literature since the classical period, with special stress on the 19th century. *Five hours a week, every quarter.* Credit, 1 course. Professors Leavitt and Shapiro.

8. TEACHERS' COURSE. Junior and Senior elective. Prerequisite, Spanish 5.

General course in Spanish phonetics. Discussion of teachers' problems. This course should be elected by those who intend to teach Spanish. *Three hours a week, spring quarter.* Credit, ½ course. Professor Shapiro.

9. COMMERCIAL SPANISH. Open to students in the School of Commerce only. Prerequisite, Spanish 5.

The object of this course is to give the student practical training in modern Spanish. Newspapers and magazine articles dealing with the life and customs of South America will be read. Practice in social and commercial correspondence. This course will be largely conducted in Spanish. *Five hours a week, spring quarter.* Credit, 1 course. Mr. Hurley.

Courses for Graduates and Advanced Undergraduates

11-12. SPANISH DRAMA OF THE SIGLO DE ORO. Prerequisite, Spanish 6.

Earlier dramatists, representative plays of Lope de Vega, Tirso de Molina, Calderón, Ruiz de Alarcón, etc. Lectures and reports. (Omitted in 1924-1925. Offered in alternate years). *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Leavitt.

19-20. THE SPANISH NOVEL.

A study of the development of the novel in Spain. (Offered in 1924-1925 and in alternate years). *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Leavitt.

21. MODERN SPANISH NOVELISTS.

Consideration of present tendencies and intensive study of one representative author. (Offered in 1924-1925 and in alternate years). *Five hours a week, spring quarter.* Credit, 1 course. Professor Leavitt.

Courses Primarily for Graduates

121-122. EARLY SPANISH.

Ford's *Old Spanish Readings.* The Poem of the Cid. Spanish literature to the sixteenth century. *Five hours a week, fall and winter quarters.* Credit, 2 courses. Professor Shapiro.

123. EARLY SPANISH LITERATURE. Prerequisite. Spanish 121-122.

Intensive study of one representative author of this period. *Five hours a week, spring quarter.* Credit, 1 course. Professor Shapiro.

131-132. INTRODUCTION TO SPANISH-AMERICAN LITERATURE.

A study of notable authors and consideration of present-day writers. *Five hours a week, two quarters.* Credit, 2 courses. Professor Leavitt.

140. RESEARCH.

Research in a special field under the direction of a member of the department.

Italian

Courses for Undergraduates

1-2. ELEMENTARY COURSE. Junior and Senior elective. Prerequisite, French 3-4 or Spanish 3-4.

Grammar, pronunciation, oral and written exercises. Reading of modern Italian texts. *Five hours a week, winter and spring quarters.* Credit, 2 courses. Professor Huse.

3-4. MODERN ITALIAN LITERATURE. Junior and Senior elective. Prerequisite, Italian 1-2.

Continuation of courses 1 and 2 with readings from modern Italian poets, dramatists, and novelists. *Five hours a week.* Credit, 2 courses. Professor Huse.

Courses for Graduates and Advanced Undergraduates

11. ITALIAN LITERATURE OF THE RENAISSANCE. Prerequisite, Italian 1-2.

Reading from the principal authors, with special emphasis on Ariosto, Machiavelli, Castiglione, and the lyric poets. Collateral reading on the history of Italian culture during the Renaissance. *Five hours a week.* Credit, 1 course. Professor Huse.

DEPARTMENT OF RURAL SOCIAL SCIENCE

EUGENE CUNNINGHAM BRANSON,* A.M., Litt.D., *Kenan Professor of Rural Social Economics.*

SAMUEL HUNTINGTON HOBBS, JR., A.M., *Associate Professor of Rural Economics and Sociology.*

* Absent on leave the last quarter of 1922-3 and the first two quarters of 1923-4.

Courses for Undergraduates

1-2-3. FORMAL COURSE IN RURAL ECONOMICS. Junior and Senior elective. Prerequisite or corequisite, Economics 1-2.

A background for defining and interpreting the economic problems of country life in North Carolina: Carver's *Principles of Rural Economics.* References: Nourse's *Readings in Agricultural Economics,* Carver's *Selected Readings in Rural Economics. Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professor Hobbs.

5-6-7. CONSTRUCTIVE STUDIES IN RURAL SOCIOLOGY. Junior and Senior elective. Prerequisite or corequisite, General Sociology 1.

Gillette's *Rural Sociology.* References: Galpin's *Rural Life;* Vogt's *Introduction to Rural Sociology;* Fiske's *Challenge of the Country;* Wilson's *Evolution of the Country Community, Sociology of Rural Life,* Proceedings of the American Sociological Society, Vol. IX, 1916; Phelan's *Readings in Rural Sociology;* Sim's *The Rural Community. Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professor Branson.

9-10-11. LABORATORY COURSE IN RURAL ECONOMICS AND SOCIOLOGY. Junior and Senior elective. Corequisite, 1-2-3 and 5-6-7.

Home-county and home-state studies, research work, and surveys. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professors Branson and Hobbs.

20. LECTURE AND RESEARCH COURSE ON NORTH CAROLINA. Junior and Senior elective.

This course is designed to familiarize the student with North Carolina: population, agriculture, resources, social life, economic development, industry. *Five hours a week, fall quarter.* Credit, 1 course. Professor Hobbs.

21. AGRICULTURAL CO-OPERATION. Junior and Senior elective.

Lecture and research. History of agricultural coöperation, principles of coöperation, coöperative organizations, rural credits, and coöperative marketing. *Five hours a week, winter quarter.* Credit, 1 course. Professor Hobbs.

Courses for Graduates and Advanced Undergraduates

13-14-15. RURAL ECONOMICS.

Research, seminars, and field investigation in (1) land economics—resources, values, ownership and tenancy, laws and policies; (2) farm organization and management—farm systems, farm finance, distribution of farm products and the farm income, coöperative farm enterprise; (3) country wealth, country institutions and problems; (4) state and county studies, economic, social, and civic; county bulletins, etc. Required preliminary preparation: approved courses in general and agricultural economics. Lacking such preparation, collateral courses in these subjects must be taken in residence here. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professors Branson and Hobbs.

17-18-19. RURAL SOCIAL PROBLEMS.

1. Research, seminars, and field investigations of (1) rural social institutions and agencies, (2) transportation and communication facilities in rural areas, (3) country-mindedness and its sequences, (4) town and country interdependencies, (5) social disability in country areas, our public welfare laws and agencies, (6) social aspects of tenancy and illiteracy, (7) state and county studies, economic, social, and civic; county bulletins, etc. 2. Rural Social Surveys; research, technic, and field work. 3. Statistics; interpretation and use. 4. Rural Social Engineering: (1) county community studies; (2) community organization, economic and social; (3) county government; (4) country leadership, requisites and technic. Required preliminary preparation; approved courses in general and rural sociology, lacking which, collateral courses in these subjects must be taken in residence here. *Five hours a week, fall, winter, and spring quarters.* Credit, 3 courses. Professors Branson and Hobbs.

DEPARTMENT OF SOCIOLOGY

Howard Washington Odum, Ph.D., *Kenan Professor of Sociology.*

Jesse Frederick Steiner, Ph.D., *Professor of Social Technology.*

Harold Diedrich Meyer, A.M., *Associate Professor of Sociology.*

Wiley Britton Sanders, A.M., *Assistant Professor of Sociology and Supervisor of Family Case Work.*

Courses for Undergraduates

1. INTRODUCTION TO SOCIOLOGY. Sophomore, Junior, and Senior elective.

   A course in the elements of social theory and its application to modern social problems and relations to other social sciences. Study and analysis of such factors as population, institutions, social movements, social structure, and social organization for the purpose of giving the student a working knowledge of the nature of society. *Five hours a week, every quarter.* Credit, 1 course. Professor Meyer.

2. PRINCIPLES OF SOCIOLOGY. Junior and Senior elective.

   A study of the fundamental concepts of sociology with special reference to their application to the problems of collective behavior. Among the topics discussed are human nature, isolation, social contacts, social interaction, social forces, conflict, accommodation, social control, and social progress. *Five hours a week, winter or spring quarter.* Credit, 1 course. Professor Steiner.

3. STATISTICS AND STATISTICAL METHODS. Junior and Senior elective.

   A brief survey of the field of theoretical statistics, with a thorough mastery of the elements of numbering, averages, modes, medians, variations, and scientific principles involved. Special emphasis will

be placed upon practical methods of utilizing statistics, the recognition of facts, gathering data, compiling, plotting, conclusions, and the special application of statistics to social phenomena. *Five hours a week, winter quarter.* Credit, 1 course. Professor Odum.

4. EDUCATIONAL SOCIOLOGY. Junior and Senior elective.

Standards of measurement of progress. Survey of sociological principles involved in their applications in education, politics, government, social work. The effective use of sociology in directing and controlling group progress, social institutions, democracy, and in the development of the total social personality of the individual. The coördination of institutional modes of activity and the enrichment, through coöperation, of social organization. *Five hours a week, spring quarter.* Credit, 1 course. Professor Odum.

5. NEGRO PROBLEMS.

A study of the race problems of the South, with consideration of the history, economic and social status, and future of the negro. Standards of measurement for race progress; race relationships; the specific problems of the here and now of southern race relations. Seminar course. *Three hours a week, fall quarter.* Credit, ½ course. Professor Odum.

6. PROBLEMS OF IMMIGRATION.

The essential problems of immigration in this country—history and analysis of immigration—restriction—adaptation—Americanization—Special problems of immigration in relation to industrial and social unrest and development. *Three hours a week, winter quarter.* Credit, ½ course. Professor Steiner.

7. PROBLEMS OF THE SMALL TOWN AND MILL VILLAGE.

The romance of the small town—its place in the American commonwealth—relationship to this state—town planning—the mill village: its social and industrial problems—special studies of selected towns. *Three hours a week, spring quarter.* Credit, ½ course. Professor Odum.

8. PRINCIPLES OF COMMUNITY ORGANIZATION.

A consideration of the social theories that underlie the modern community movement; a critical review of the role of custom, habit, crisis, and gregariousness in community development. Special attention is given to the place of the crowd spirit in community work and to effective means of achieving community solidarity. An evaluation of community forces with a view to discovering the principles involved in their organization and coördination. *Three hours a week, winter quarter.* Credit, ½ course. Professor Steiner.

9. ADMINISTRATION OF COMMUNITY WORK.

A general survey of typical experiments in community organization; development and coördination of community activities illustrated by

case records; a comparative study of methods of administration with special attention to problems of central financing of social agencies; qualifications for leadership in community work. *Three hours a week, spring quarter.* Credit, ½ course. Professor Steiner.

10. THE STUDY OF SOCIAL PROBLEMS. Sophomore, Junior, and Senior elective.

The study of Modern Social Problems. Part I. The individual in relation to society. Part II. The Modern Problems, classified in accordance with the six major social institutions. Part III. Demoracy, Public Welfare, and Social Progress. *Five hours a week, every quarter.* Credit, 1 course. Professor Meyer.

11. THE FAMILY.

Early forms of the family in primitive society; its historical development during Greek, Roman, and Mediaeval periods. The modern family and its problems. *Three hours a week, fall quarter.* Credit, ½ course. Professor Steiner.

12. CRIME AND ITS SOCIAL TREATMENT.

Nature and causes of crime; evolution of modern methods of criminal procedure; administration of penal and reformatory institutions; programs for the social treatment of the criminal; the problems of juvenile delinquency. *Three hours a week, winter quarter.* Credit, ½ course. Professor Steiner.

13. SOCIAL PATHOLOGY.

A study of the abnormal and pathological aspects of social life: problems of dependency and degeneracy, and methods of care and treatment of dependent and defective classes. *Three hours a week, spring quarter.* Credit, ½ course. Professor Steiner.

14. FAMILY CASE WORK.

Discussion of the relation of the individual to the family and the family to the community. The technique of case work and its scientific approach—methods of investigation, interviewing, social evidence, sources, diagnosis, treatment. *Five hours a week, fall or spring quarter.* Credit, 1 course. Professor Sanders.

15. ADVANCED FAMILY CASE WORK.

A continuation of Sociology 14, devoted to a more extensive discussion of case work methods and their application, with special reference to different types of problems. Discussion of agencies, public and private, dealing with case problems. Wider implications of case work are given consideration together with legislation affecting the case work field. *Five hours a week, fall or spring quarter.* Credit, 1 course. Professor Sanders.

20. SOCIOLOGY: THE PRINCIPLES OF FIELD WORK.

The study and demonstration of field work as a standard laboratory course in social science. Fourteen hours a week required of all who major in community work. *Three hours a week, fall quarter.* Credit, ½ course. Professor Meyer.

21. SOCIOLOGY: FIELD WORK AND COMMUNITY SURVEYS.

Planning for community recreation. Special days—Special programs for communities—map-drawing and surveys—Community Fairs. *Three hours a week, winter quarter.* Credit, ½ course. Professor Meyer.

22. SOCIOLOGY: COMMUNITY SURVEYS.

Planning and organizing surveys. Making survey schedules. Tabulating statistical information. Interpreting results. Publishing information obtained. The students will be expected to participate in the survey of a local community. *Three hours a week, winter quarter.* Credit, ½ course. Professor Meyer.

24. SOCIOLOGY: THE PHILOSOPHY OF PLAY.

A study of the play instincts—the relation of play to physical growth, to mental, social, and moral development—theories of play—social significance in modern times. To be taken with Sociology 20, 21. *Three hours a week, spring quarter.* Credit, ½ course. Professor Meyer.

27. SOCIOLOGY: STANDARDS OF CHILD WELFARE.

The minimum standards of child welfare. Analysis of the problems of today and of current conditions. The study of stated community and legislative remedies; the study of special forms of child welfare—baby-saving and infant welfare movements; child institutes; dependent and delinquent childhood. *Three hours a week, winter quarter.* Credit, ½ course. Professor Sanders.

28. SOCIOLOGY: JUVENILE DELINQUENCY.

A study of the problems of juvenile delinquency together with modern methods of treatment. The Juvenile Court, methods of probation, the visiting teacher. *Three hours a week, spring quarter.* Credit, ½ course. Professor Sanders.

Courses Primarily for Graduates

121. SOCIOLOGY: THE PRINCIPLES OF SOCIOLOGY.

A graduate seminar in the study of advanced social theory and research into some special social problems. *Five hours a week, fall quarter.* Credit, 1 course. Professor Odum.

122. SOCIOLOGY: EDUCATIONAL SOCIOLOGY.

An advanced course in the study of scientific programs of social progress. Objective measurement of social influences and social

groups. Research into some specific problem relating to one of the larger institutions. *Five hours a week, winter or summer quarter.* Credit, 1 course. Professor Odum.

123. SOCIOLOGY: HISTORICAL SOCIOLOGY.

A study of the leading social theorists and their contribution to human thought and welfare. Research into the theories of some selected writer. *Five hours a week, spring quarter.* Credit, 1 course. Professor Odum.

124. SOCIOLOGY: POVERTY AND RELIEF.

A research seminar on the social treatment of the dependent in society. One special topic selected for research, as the County Home. *Five hours a week, fall quarter.* Credit, 1 course. Professor Steiner.

125. SOCIOLOGY: NATIONAL AGENCIES FOR PUBLIC SERVICE.

A graduate seminar in the study of state and national agencies, public and private, for the administration of relief. *Five hours a week, winter quarter.* Credit, 1 course. Professor Steiner.

126. SOCIOLOGY: COMMUNITY ORGANIZATION.

An advanced course following Sociology 8. Intensive study of special movements and new theory and practice in community organization and leadership. *Five hours a week, spring quarter.* Credit, 1 course. Professor Steiner.

DEPARTMENT OF ZOOLOGY

HENRY VANPETERS WILSON, Ph.D., *Kenan Professor of Zoology.*

ROBERT ERVIN COKER, Ph.D., *Professor of Zoology.*

Teaching Fellow in Zoology, 1923-1924

JAMES THEOPHILUS PENNEY, A.B.

Assistants in Zoology, 1923-1924

JASPER DANIEL WEST.

DANIEL CALVIN CORRIHER.

EVERETT SULTAN MCDANIEL, JR.

(For description of Biological Laboratories, see page 35).

Courses for Undergraduates

1 (a). ELEMENTARY PRINCIPLES OF ZOOLOGY. Sophomore, Junior, and Senior elective. Required accompanying course, Zoology 1 (b). Fundamentals of anatomy, physiology, and classification of animals. Lectures. *Three hours a week, winter quarter.* Credit, ½ course. Professor Wilson.

1 (b). INTRODUCTION TO PRACTICAL ZOOLOGY. Sophomore, Junior, and Senior elective. Required accompanying course, Zoology 1 (a).

Dissection of animals and study of tissues, to give the foundation for an understanding of the organization and functions of vertebrate animals and especially of man. Two laboratroy exercises and one lecture each week. *Three hours a week, winter quarter. Laboratory fee, $5.00.* Credit, ½ course. Professor Coker and Assistants.

2 (a). DEVELOPMENT OF ANIMALS. Sophomore, Junior, and Senior elective. Prerequisite, Zoology 1 a, b.

Basic facts and theories of individual development, heredity, and evolution. Lectures. *Three hours a week, spring quarter.* Credit, ½ course. Professor Wilson.

2 (b). INTRODUCTION TO GENERAL ZOOLOGY. Sophomore, Junior, and Senior elective. Prerequisite, Zoology, 1 a, b.

Dissection and study of invertebrate animals, with some account of their development, to give basis for an understanding of the principles of classification and of the main ideas of biology. Two laboratory exercises and one lecture each week. *Three hours a week, spring quarter. Laboratory fee, $5.00.* Credit, ½ course. Professor Coker and Assistants.

Courses for Graduates and Advanced Undergraduates

3. COMPARATIVE ANATOMY OF VERTEBRATES. Prerequisite, Zoology 1 a, b. (Zoology 2 a, b, strongly recommended).

Dissection of types, especially amphioxus, petromyzon, fish, fowl, rabbit. Laboratory work with occasional lectures. *Five hours a week, fall quarter. Laboratory fee, $5.00.* Credit, 1 course. Professor Wilson.

4. COMPARATIVE EMBRYOLOGY OF VERTEBRATES. Prerequisites, Zoology 1 a, b, and 2 a, b, or 1 a, b, and 3.

Maturation and fertilization phenomena in some invertebrate types; segmentation and formation of germ layers in frog and teleost fish; germ layers and development of characteristic vertebrate organs in chick; essentials of microscopic technique. Laboratory work with occasional lectures. *Five hours a week, winter quarter. Laboratory fee, $5.00.* Credit, 1 course. Professor Wilson.

5. COMPARATIVE HISTOLOGY OF VERTEBRATES. Prerequisite, Zoology 4.

Microscopic preparation of selected tissues and organs are made from the fresh animal, and studied with the help of texts. Laboratory work with assigned reading. *Five hours a week, spring quarter. Laboratory fee, $5.00.* Credit, 1 course. Professor Wilson.

6-7-8. MORPHOLOGY AND CLASSIFICATION OF THE INVERTEBRATES. Prerequisite, Zoology 1 a, b, and 2 a, b.

Dissection and microscopic study of types of the chief orders, with some consideration of life histories; systematic diagnosis. Laboratory work with occasional lectures. *Three hours a week, fall, winter, and spring quarters. Laboratory fee, $3.00 a quarter.* Credit, 1½ courses. Professor Wilson.

9. LIMNOLOGY. Junior and Senior elective. Prerequisite, Zoology 2 (b).

A study of animal life in ponds and streams, with special reference to the relations of animals to each other and to their environments. Field and laboratory work, lectures, reading of special papers, discussions. *Five hours a week, fall or spring quarter. Laboratory fee, $5.00.* Credit, 1 course. Professor Coker.

Courses Primarily for Graduates

109-110-111. GENERAL EMBRYOLOGY AND REGENERATION.

Embryology and Regeneration in the lower metazoa and simpler vertebrates. *Not less than five hours a week, fall, winter, and spring quarters. Laboratory fee, $5.00 a quarter.* Credit, 3 courses. Professor Wilson.

112. RESEARCH UNDER DIRECTION.

Designed especially for candidates for the Master's Degree. *Three or five hours a week, spring quarter. Laboratory fee, $3.00 or $5.00.* Credit, ½ or 1 course. Professor Wilson or Professor Coker.

PART FOUR

THE COLLEGE OF LIBERAL ARTS
THE SCHOOL OF APPLIED SCIENCE
THE SCHOOL OF ENGINEERING
THE SCHOOL OF EDUCATION
THE SCHOOL OF COMMERCE
THE SCHOOL OF PUBLIC WELFARE
THE GRADUATE SCHOOL
THE SUMMER SCHOOL
THE UNIVERSITY EXTENSION DIVISION

THE COLLEGE OF LIBERAL ARTS

Harry Woodburn Chase, Ph.D., LL.D., *President.*
James Finch Royster, Ph.D., *Dean.*

THE ADMINISTRATIVE BOARD

George Howe, Ph.D., *Professor of the Latin Language and Literature.*

Joseph Gregoire deRoulhac Hamilton, Ph.D., *Kenan Professor of History and Government.*

Walter Dallam Toy, M.A., *Professor of the Germanic Languages and Literatures.*

William Frederick Prouty, Ph.D., *Professor of Stratigraphic Geology.*

Edgar Wallace Knight, Ph.D., *Professor of Rural Education.*

William Chambers Coker, Ph.D., *Kenan Professor of Botany.*

Howard Russell Huse, Ph.B., *Associate Professor of Romance Languages.*

Corydon Perry Spruill, Jr., A.B., B.Litt., *Assistant Professor of Economics.*

REQUIREMENTS FOR ADMISSION

See page 51.

EXPENSES

See page 61.

COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS

The course leading to the degree of Bachelor of Arts is designed to provide a general, well-rounded, liberal education.

In order to be recommended for the degree a student must pass satisfactory examinations in thirty-six whole courses including the prescribed subjects listed below and elective subjects in accordance with the requirements stated. Attention is called to the course in Humanities and to the work outlined for Degrees with Distinction.

A whole course consists of five or six class periods a week for one quarter. A half course consists of three class periods for a week for one quarter. Two half courses are equivalent to one whole course. Each class period pre-supposes two hours of preparation or the equivalent in laboratory work.

In the first two years the student pursues a more or less definite curriculum in the following subjects:

English	three courses
Foreign Languages	three courses in each of 2 languages
History	two courses
Mathematics	two courses
Science	two courses

Beginning with the Junior year the work is on an elective basis, providing what is deemed a proper amount of concentration in study and, at the same time, a certain distribution of subjects.

Students who expect at some time to carry out investigation in any science or scientific profession, such as medicine or engineering, are earnestly recommended to enter upon their Senior year with a reading knowledge of German and French. Class work in these subjects should have included at least four courses in German and two in French.

Freshman Year

English 1
Mathematics 1-2
History 1-2

Select two:
- Greek 1-2 or Greek 3-4**
- Latin 1-2
- French 3-4
- German 1-2 or German 3-4***
- Spanish 3-4

** Greek 3-4 is to be taken if the equivalent of Greek 1-2 has been offered at entrance. Note that Greek through course 5 is required to complete the Sophomore requirement in this language.

*** German 3-4 is to be taken if the equivalent of German 1-2 has been offered at entrance. Note that German 3-4 and an additional course are required to complete the Sophomore requirement in this language.

By postponement of any one of these double courses until Sophomore year, a double course in Science (Botany 1, 2; Chemitsry 1-2; Zoology 1, 2; Geology 1-2) may be taken in Freshman year.

Not more than three courses may be taken in any one term except by special permission of the Administrative Board.

Sophomore Year

Select one	English 3-4 Botany 1, 2 Chemistry 1-2 Physics 1, 2 Zoology 1, 2 Botany 1 and Zoology 1 Geology 1-2	Select two	Greek 3-4 or Greek 5** Latin 3 French 5 German 21* Spanish 5
			Elective, 3 Courses†

Sophomore Electives

Botany 1, 2	Government 1-2
Chemistry 1-2	History 3-4, 7-8, 9, 10, 11
Economics 1-2, 5	Latin 3, 4, 5, 6, 10
English 4 or 5, 13-14-15, 16-17-18, 20, 37, 38, 51, 55, 59, 66	Mathematics 3, 4, 5
	Physics 1, 2
French 3-4, 5, 6	Psychology 1-2
Geology 1-2	Zoology 1, 2
German 3-4, 21, 22, 23, 25-26	Sociology 1, 10
Greek 3-4, 5, 6, 7	Spanish 3-4, 5, 6

If a course in Science has been taken in Freshman year, the Freshman course then postponed must be taken in place of the course in Science required of Sophomores.

Not more than three courses may be taken in any one term except by special permission of the Administrative Board. In case permission for extra work has been granted, a mid-term report of "X" on any course will necessitate the dropping of that course.

SYSTEM OF ELECTIVES

For the purpose of providing for the required concentration and distribution of electives in the Junior and Senior year, the various departments of the College are grouped under three general divisions, as follows:

** Greek 5 is to be taken if the equivalent of Greek 1-2 has been offered at entrance. Note that Greek through course 5 is required to complete the Sophomore requirement in this language.

* German 23 or 25 may be substituted.

† See list of Sophomore Electives below. The 3 elective courses must be chosen from this list and cannot be courses used by the student to meet any other requirement.

DIVISION I. *Language and Literature.*

Comparative Literature	Greek
English	Latin
German	Romance Languages

DIVISION II. *Philosophy, Political and Social Sciences.*

Economics	History and Government
Rural Social Science	Philosophy
Education	Sociology

DIVISION III. *Mathematics, Natural Sciences, Psychology.*

Botany	Physics
Chemistry	Psychology
Geology	Zoology
Mathematics	

Junior Year

Not later than May 15 of his Sophomore year each student shall hand into the Registrar and to the Dean of the College duplicate lists of his electives for the Junior year, chosen in accordance with the scheme of electives shown below. He must specify the department chosen for concentrated study and the particular courses in this and other departments. This list must have the written approval of the head of the chosen department before it will be accepted by the Registrar, *and is a prerequisite to registration in the Junior year.*

A Junior shall pursue elective studies amounting to nine courses, chosen according to the following regulations:

Each student is required to elect, in each quarter, either three whole courses or two whole courses and two half courses. A student will be permitted to take not more than three whole courses and one half course in any one quarter, except by permission of the Dean, and in no case will he be permitted to pursue more than four courses at one time, except by special permission of the Administrative Board. In case permission for extra work has been granted, a mid-term report of "X" on any course will necessitate the dropping of that course.

One department from one of the three general divisions must be selected for concentrated study. This is known as his *major* department. Not fewer than three courses nor more than five courses may be elected in this department. The courses are to be

decided upon only after consultation with the head of the department. It lies within the discretion of the head of the department whether these courses shall be prescribed in his own department, or any part of them in allied departments. A Sophomore elective, completed the previous year, may be counted by the head of the department as one of the courses necessary for the minimum of three courses; but in that case an additional elective (chosen from any department) must be taken to complete the general requirement of nine courses.

The remaining courses (four to six) are free electives, subject only to the restriction that at least one course must be chosen from a department in each of the other general divisions. These two departments are known as the student's *minors*. One of these two courses should be selected with a view to a continuance of the same subject in Senior year (see Senior requirements). This department is known as his first *minor*.

The remaining courses, if any, shall be free electives in any subject open to Juniors.

Senior Year

Not later than May 15 of his Junior year each student shall hand in to the Registrar and to the Dean of the College duplicate lists of his electives for the Senior year, chosen in accordance with the scheme of electives shown below. He must specify the department chosen for concentrated study and the particular courses in this and other departments. This list must have the written approval of the head of the chosen department before it will be accepted by the Registrar, *and is a prerequisite to registration in the Senior year.*

A Senior shall pursue elective studies amounting to nine courses, chosen according to the following regulations:

Each student is required to elect, in each quarter, either three whole courses or two whole courses and two half courses. A student will be permitted to take not more than three whole courses and one half course in any one quarter, except by permission of the Dean, and in no case will he be permitted to pursue more than four courses at one time, except by special permission of the Administrative Board. In case permission for extra work has been granted, a mid-term report of "X" on any course will necessitate the dropping of that course.

A Senior shall continue in the department of concentrated study begun in Junior year, known as his *major*. Not fewer than three courses nor more than five courses may be elected in this department. The courses are to be decided upon only after consultation with the head of the department. It lies within the discretion of the head of the department whether these courses shall be prescribed in his own department, or any part of them in allied departments.

The remaining courses (four to six) are free electives, except that at least two courses must be chosen from one of the other general divisions and in a department in which a course was elected in Junior year, thus completing the first *minor*.

COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS IN HUMANITIES

Within the College of Liberal Arts has been established a particular arrangement of courses leading to the degree of A.B. in Humanities. The intention of this programme of study is to throw emphasis upon studies of a more nearly human or personal interest than may be chosen by the candidate for the A.B. degree under the wider elective programme described above. Though the degree requirements, in general, approach more nearly those demanded for the A.B. degree a generation ago than do the requirements which may be met for the general A.B. degree, they differ only slightly from the programme of studies which many students in the College of Arts are following. The distinction lies in a prescribed arrangement of courses, chosen to coördinate the student's interest in the human and intellectual expression of man in the ancient and in the modern world. The requirements for the freshman year are practically the same as those in the general A.B. course.

Two lines of approach to the degree of A.B. in Humanities are offered: (1) An Ancient Curriculum, in which Greek or Latin is required; (2) a Modern Curriculum, in which French and German or French and Italian are required. Of the thirty-six courses required for the degree, thirty-one are specified in the Ancient Curriculum, while five are elective; thirty are specified in the Modern Curriculum, while six are elective.

Students who desire to follow the course of study leading to the degree of A.B. in Humanities should consult the Dean of the College of Liberal Arts.

	Ancient Curriculum	Modern Curriculum
FRESHMAN YEAR		
	English 1	English 1
	Mathematics 1-2	Mathematics 1-2
	History 1-2	History 1-2
Select two of which one must be Greek or Latin	Greek 1-2 Latin 1-2 French 3-4 German 1-2	French 3-4-5 Compar. Literature 14 (Greek)
SOPHOMORE YEAR		
	English 3	English 3
	History 5-6	History 3-4
	Greek 17 (Ancient Art)	Compar. Literature 15 (Latin)
	Natural Science, two courses	Natural Science, two courses
Select one group	Greek 3-4 and Latin 5 or French 5 or German 3 Latin 5-6 and French 5 or German 3 (Languages chosen in Freshman year must be chosen here).	French 6 and German 1-2 or Italian 1-2
JUNIOR YEAR		
	English 4 or 5	English 4
	Mathematics 63 (Euclid)	Mathematics 63 (Euclid)
	Natural Science, one course	Natural Science, one course
	Economics 1-2	Economics 1-2
	Philosophy 1	Philosophy 1
Select one group	Greek 5 and Latin 6 or French 6 or German 4 Latin 51 and French 6 or German 4 (Languages chosen above must be continued).	German 3-4 or Italian 5-6 (Dante) (Language chosen above must be continued).
	Elective, one course.	Elective, one course
SENIOR YEAR		
Select one	English 6 History 12 Compar. Lit. 16 (Middle Ages) Compar. Lit. 61 (Renaissance) Philosophy 2	English 5 Economics 5 Philosophy 2
**Select one		German 22 French 15 Italian 7
*Select one	Greek 6 or 11 German 22 Compar. Lit. 36 (Greek Drama)	
	Elective, four courses	Elective, five courses

* If Greek or German is chosen above it is to be continued here.

** If German or Italian is chosen above it is to be continued here.

ELECTIVES

Note that only one language (Greek and Latin counting as one) may be continued as elective beyond the required work.

I. ELECTIVES UNDER THE ANCIENT CURRICULUM

Botany 1, 2
Chemistry 1, 2
Comparative Literature 16, 31, 32, 51, 52, 53, 56, 78
Economics 15, 16
English 37, 38, 51, 55, 56, 59, 60, 41, 42, 43, 44, 45, 47, 48
French 11-12, 13, 18, 24
Geology 3-4
German 31 (Goethe), 41-42, 43-44
Greek 6, 11, 21-22
History 12, 14, 23, 32-33, 34-35
Italian, any courses
Latin 3, 6, 12, 13, 14, 30, 32
Mathematics 4, 5
Philosophy, any courses
Physics 14
Zoology, 1, 2

II. ELECTIVES UNDER THE MODERN CURRICULUM

Botany 1, 2
Chemistry 1, 2
Comparative Literature 16, 31, 32, 36, 51, 53, 56, 61, 68, 78
Economics 16, 18-19
English 37, 38, 51, 55, 56, 59, 60, 41, 42, 45, 47, 48
French 11-12, 13, 15, 16, 18, 24
Geology 3-4
German 23, 31 (Goethe), 41-42, 43-44
Government 1-2, 5
History 7-8, 14, 23, 5-6
Italian, any courses
Mathematics 4, 5
Music 2, 3, 4
Philosophy, any courses
Physics 14
Zoology 1, 2

DEGREES WITH DISTINCTION

Honors of two grades, *Honors* and *Highest Honors,* will be awarded at Commencement to those candidates for the degree of Bachelor of Arts who have done distinguished work in a group of related subjects. Every candidate for Honors must register before October 15 of his Junior year with the Committee on Degrees with Distinction. He shall file a statement, properly approved, of the courses which he proposes to elect, and these electives shall be such as to show a unified plan and to provide for a field of concentrated study involving, as a rule, two departments within the division in which his major work lies. In connection with the regular courses, candidates are expected to do, in term-time and in vacations, a considerable amount of additional reading, or such other supplementary work as may be prescribed by the department. In every case such additional work must be closely related to the general plan of study adopted by the candidate. Students will have the guidance and assistance of special instructors, and small groups will be formed for the discussion of the reading and of the courses. This tutorial assistance will be entirely independent of

the conduct of the courses, the object being to stimulate interest in reading not required as a part of the regular class-work for its culture value rather than for direct preparation for examinations.

Besides the careful organization of the plan of study and the conferences, a thesis and a final oral examination are required. The thesis need not necessarily be a contribution to knowledge, but is designed to show the ability of the student to use his knowledge with intelligence and to interpret facts and his personal reaction upon the material studied in the courses or derived from the supplementary reading. The examination will test the candidate's knowledge of the whole field of concentrated study, and will also test his proficiency in a special topic within the general field. The aim of the entire plan of study is thus to secure, as far as possible, a conception of a field of learning as a unity; to prevent, through the various measures named above, undue emphasis on the separate courses as independent units; and to lay the foundation for right method through concentrated study in some part of the field.

The administration of the Honors courses is vested in a Committee on Degrees with Distinction, which consists of three representatives from each of the three divisional groups into which the Faculty of the College of Liberal Arts is divided. At present Honors are offered in the Division of Language and Literature on the following terms:

Requirements for Honors in Language and Literature

1. A reading knowledge of one language besides English.

2. Six courses chosen from those open to Juniors, Seniors, and Graduates. Of these, four are to be in one department, the other two may be (*a*) in another literature, or (*b*) in history, provided the courses are closely correlated with work in the major subject. But other combinations may be made, provided they show a definite plan.

3. In every case the major and minor groups constituting the six courses must show a definite relationship: *e. g.*, the study of a period, such as Romanticisim in France, Germany, and England, this study including history as well as literature; or the study of a type, such as tragedy, in at least two literatures; or the study of the influence of some writer, for example, Plato, Vergil, Dante, Shakespeare, Goethe, on some literature other than his own. Other means of securing correlation may also be approved.

4. Acquaintance with the following subjects is to be gained within or outside courses regularly elected: (*a*) the history of the literature chosen for the major subject, including the principal masterpieces illustrating its development; (*b*) some acquaintance with the political and social history of the nation whose literature is so elected; (*c*) some acquaintance with the history and philology of the language. The extent of the candidate's knowledge of these topics, as well as of the field or topic chosen for intensive study, will be tested by the examination to be held near the end of the Senior year.

5. An essay of some length is to be written upon some topic belonging to the field chosen for intensive study. This essay must show (*a*) investigation and mastery of facts; (*b*) power of interpretation; (*c*) excellence in composition and style.

6. In estimating the value of the candidate's work due regard will be paid to the grades attained by him in his regular college courses, but the matter of grades is subsidiary to other considerations, such as the extent and quality of his reading, the maturity of his thought, and his ability to use his knowledge effectively.

THE SCHOOL OF APPLIED SCIENCE

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*
*ANDREW HENRY PATTERSON, A.M., *Dean.*
JAMES MUNCIE BELL, Ph.D., *Acting Dean.*

THE ADMINISTRATIVE BOARD

*ARCHIBALD HENDERSON, Ph.D., D.C.L., LL.D., *Professor of Mathematics.*
JAMES MUNSIE BELL, Ph.D., *Smith Professor of Chemistry.*
COLLIER COBB, D.Sc., *Professor of Geology.*
WILLIAM MORTON DEY, Ph.D., *Professor of the Romance Languages and Literatures.*
ISAAC HALL MANNING, M.D., *Professor of Physiology.*
CLARENCE ADDISON HIBBARD, M.A., *Associate Professor of English.*

REQUIREMENTS FOR ADMISSION

See page 51.

EXPENSES

See page 61.

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science in this School the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, IV, and V. Each course combines instruction in certain sciences and their application to the arts, with certain other general studies deemed essential to a liberal education. These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are three in number.

I. Bachelor of Science in Chemistry.
IV. Bachelor of Science in Medicine.
V. Bachelor of Science in Geology.

Besides the courses leading to degrees as shown above this School offers courses preparatory to the study of Medicine and of Dentistry. Outlines of the courses leading to degrees and of these premedical and predental courses are given below.

* Absent on leave, 1923-1924, on the Kenan Foundation.

I. BACHELOR OF SCIENCE IN CHEMISTRY

FRESHMAN YEAR

Fall Quarter: Chemistry 1E, Mathematics 1E, German 3, Drawing 1.

Winter Quarter: Chemistry 2E, Mathematics 2E, German 4, Drawing 2.

Spring Quarter: Chemistry 31, Mathematics 3E, English 1.

SOPHOMORE YEAR

Fall Quarter: Chemistry 41, Mathematics 4E, English 3.

Winter Quarter: Chemistry 42, English 4, Physics 1.

Spring Quarter: Chemistry 61, Chemistry 8, Chemistry 47, Physics 2.

JUNIOR YEAR

Fall Quarter: Chemistry 45, Chemistry 62, Engineering 50a, Economics 1.

Winter Quarter: Chemistry 81, Chemistry 46, Engineering 50b, Economics 2.

Spring Quarter: Chemistry 82, Chemistry 63, Engineering 50c, Economics, elective.

SENIOR YEAR

Fall Quarter: Chemistry 21, Chemistry 83, Chemistry 11, Geology 3.

Winter Quarter: Chemistry 22, Chemistry 64, Chemistry 12, Geology 4.

Spring Quarter: Chemistry 23, Chemistry 84, Chemistry 13, Chemistry 18.

IV. BACHELOR OF SCIENCE IN MEDICINE

FRESHMAN YEAR

Fall Quarter: Chemistry 1, Mathematics 1, French 3 or German 3.*

Winter Quarter: Chemistry 2, Mathematics 2, French 4 or German 4.*

Spring Quarter: Botany 1, English 1, French 5 or German 21.

* If French is not offered as an entrance credit, the elementary courses must be taken up in the University without credit. The same principle applies to German. Note that this course requires four courses of college grade work in French or German above the elementary courses 1 and 2 or two such courses in French *and* two such courses in German. In case both French and German are taken, note that the requirements are French through course 4 *and* German through course 4. In case only one language is taken, that language must be continued through French 6 or German 22 according to the language chosen.

SOPHOMORE YEAR

Fall Quarter: Physics 1, Chemistry 35, French 6 or German 22.

Winter Quarter: English 3, Zoology 1, Physics 2.

Spring Quarter: Chemistry 61, English 4, *Elective, 1 course.

JUNIOR YEAR

Fall Quarter: Chemistry 62, Psychology 1, Zoology 3.

Winter Quarter: Psychology 2, *Elective, 2 courses.

Spring Quarter: *Elective, 3 courses.

V. BACHELOR OF SCIENCE IN GEOLOGY

FRESHMAN YEAR

Fall Quarter: Geology 1, Mathematics 1, Chemistry 1, Drawing 1.

Winter Quarter: Geology 2, Mathematics 2, Chemistry 2, Drawing 2.

Spring Quarter: English 1, Botany 1, Chemistry 31, German 3 or French 3 or Spanish 3.

SOPHOMORE YEAR

Fall Quarter: Geology 3, Physics 1, German 4 or French 4 or Spanish 4, Engineering 22a.

Winter Quarter: Geology 4, Geology 8, Physics 2.

Spring Quarter: Geology 9, Geology 13, Engineering 16c, Engineering 22c.

JUNIOR YEAR

Fall Quarter: Geology 11, English 3, Engineering 6a, Elective, 1 course.

Winter Quarter: Geology 12, Geology 23, English 4, Engineering 6b.

Spring Quarter: Geology 10, Geology 51, Engineering 6c, Elective, 1 course.

SENIOR YEAR

Fall Quarter: Chemistry 11, Geology 15, Geology 21.

Winter Quarter: Chemistry 12, Geology 21, Economics 1 (or elective, 1 course).

Spring Quarter: Geology 25, Geology 52, Economics 2 (or elective, 1 course).

* Note that six full courses of electives are required in addition to the courses prescribed above.

PREMEDICAL OR PREDENTAL COURSE
(Two Year Course)

FRESHMAN YEAR

Fall Quarter: Chemistry 1, English 1, French 3 or German 3.

Winter Quarter: Chemistry 2, Mathematics 1, French 4 or German 4.

Spring Quarter: Chemistry 35, Mathematics 2, English 2 (Premedical).

SOPHOMORE YEAR

Fall Quarter: Botany 1, Psychology 1, Physics 1.

Winter Quarter: Zoology 1, Psychology 2, Physics 2.

Spring Quarter: Zoology 2, Chemistry 61, Elective, 1 course.

The course outlined above is planned with the object of preparing a student in the shortest possible time to enter upon the study of medicine. It is not laid down as prescribed but is suggested to meet the requirements of Schools of Medicine which require only two years of academic work (sixty semester hours). Further work in Physics and in Organic Chemistry should be taken in the summer following the completion of the above work if possible. Students preparing for the study of Dentistry are advised to follow the course outlined above. It is recommended, however, that they secure at least the equivalent of one course in Drawing. At present Schools of Dentistry vary as to entrance requirements from graduation from a high school to two years of college work. Those requiring college work set as a minimum the completion of the following subjects in the amounts stated: Six semester hours in each of the following—English, General Chemistry, Biology or College Physics (the latter unless 1 unit was presented for entrance), and one subject from Foreign Language, History, Mathematics, Technical Drawing. The remaining six semester hours are free electives.

The course outlined below, while not so complete as the two year course above, is planned to meet the entrance requirements of Schools of Dentistry which admit students who have had one year of college work. If the applicant has presented one full unit of credit in Physics from his high school, Physics 1 and 2 are not required, but are strongly recommended in any case. In case Physics 1 and 2 are not taken the student is required to take two other courses of college grade in order to make his total credits sufficient to meet the requirement of thirty semester hours. History 1 and 2 are recommended for this purpose.

ONE YEAR PREDENTAL COURSE

Fall Quarter: Botany 1, Chemistry 1, Mathematics 1.

Winter Quarter: English 1, Mathematics 2, Physics 1, Zoology 1.

Spring Quarter: Chemistry 2, English 2 (Premedical), Physics 2.

By attending the Summer Quarter the student may lighten somewhat the course in the Winter Quarter and can secure valuable work in Qualitative Analysis. This course of action is advisable especially if the student is obliged to take Physics after he enters. Instead of the arrangement shown above the work should be taken in the following order:

Fall Quarter: Chemistry 1, English 1, Mathematics 1.

Winter Quarter: Mathematics 2, Physics 1, Zoology 1.

Spring Quarter: Botany 1, Chemistry 2, English 2 (Premedical).

Summer Quarter: Chemistry 35, Physics 2.

THE SCHOOL OF ENGINEERING

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

GUSTAVE MAURICE BRAUNE, C.E., *Dean.*

THE ADMINISTRATIVE BOARD

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CLARENCE ADDISON HIBBARD, M.A., *Associate Professor of English.*

REQUIREMENTS FOR ADMISSION

See page 52.

EXPENSES

See page 61.

HISTORICAL SKETCH AND DESCRIPTION OF COURSES

Courses in engineering of professional grade have been given for a number of years at the University of North Carolina. Up to June, 1922, the courses in engineering were grouped in the School of Applied Science; but owing to a rapid development in engineering here, and due to the great need of well trained professional engineers, especially in the State of North Carolina, the Board of Trustees has recently separated the Department of Engineering from the School of Applied Science and authorized the formation of a distinct school of engineering. In this school, at present, are included the Departments of Civil, Electrical, and Mechanical Engineering, and will also include any other new departments in

* Absent on leave, 1923-1924, on the Kenan Foundation.

engineering that may be established. With the formation of the Engineering School ample opportunities will be given to the Engineering Departments to expand along broad and cultural lines.

The instruction offered in the Engineering School consists of four year courses leading to the degree of Bachelor of Science in Civil, Electrical, and Mechanical Engineering.

The degree of Master of Science in Engineering will be conferred on students who have satisfactorily completed approved graduate work extending over not less than one year. The course of studies leading to the Master's degree will be found under the Graduate School Section.

The engineering courses have been developed along broad and cultural lines and the importance of cultural training as a part of a thorough technical education has been constantly kept in mind. The importance of English in the curriculum has been emphasized and the courses are arranged so that students will receive instruction in English throughout the four-year period. Much attention is also given to training the young students in public speaking. This is an acquired art, and a very necessary adjunct of an engineering education. Engineers must necessarily be versed in business affairs, and to meet this condition students will devote considerable time to Economics and Business Administration and Management. During the first three years, the contents of the curriculum are practically the same for all engineering students. Fundamentals in Mathematics, Mechanics, and other sciences are contained in these first three years while the application of these fundamentals are illustrated throughout the course by the solution of a number of practical problems in engineering.

The intimate contact of engineering students with the academic students and the participation of the former in all University activities is regarded as a valuable part of their general training, the making of a broad, cultural, all-around manhood.

CO-OPERATIVE ENGINEERING EDUCATION

For the past ten years or more a great amount of time and thought has been devoted to engineering by engineering teachers and the profession at large, with the idea in mind of adopting some method in engineering education that would develop the observation and initiative of the students and bring them in touch with outside things during their theoretical training. Criticism has

often been directed against young engineering graduates by practising engineers that they did not have any grasp or conception of practical things after four or five years of theoretical training.

In order to meet this criticism the University of Cincinnati installed in the fall of 1906 a method of engineering education which is called coöperative education. Under this plan the students spend half of their time at the University receiving their theoretical training and the other half with engineering industrial firms, thus getting some practical training during their collegiate period. This system of education has proven quite successful and has been adopted by a number of prominent institutions, among which are Harvard, Massachusetts Institute of Technology, and New York University. The method of coöperation has been modified by several of the institutions that have adopted this system; for example the Engineering School of Harvard University has arranged a plan whereby the students of the junior class only coöperate with the outside industries. This modified plan permits the students to get that touch with outside practice, but at the same time does not destroy the social and cultural contact which the students derive from full time association on the University campus during the Freshman, Sophomore, and Senior years.

Realizing that the coöperative system of training young engineers is a distinct step forward, the Engineering Departments of the University of North Carolina have adopted the Harvard plan which went into effect September, 1922.

Under this plan the students of the junior class are divided into two groups to be designated as Sections I and II. The students in each group spend half their time at the University and the other half in actual engineering work. Each student has an alternate so that when a student of Section I is at school his alternate in Section II is on the job. At the end of four weeks the student from Section II goes to school while his alternate in Section I takes his place on the job. This alternation continues throughout the junior year up to the latter part of September, when both sections attend the University full time during their senior year.

In order to compensate for the time that the students are away from school during their junior year, the sophomores are given a summer course lasting eight weeks, so that under the new coöperative plan the students receive the same amount of school work as under the regular four-year plan. The students receive pay for

their services during the time that they are on their outside work, thus enabling them partially to defray their expenses during their junior year.

II. S.B. IN ELECTRICAL ENGINEERING

Freshman Year

Mathematics 1E, 2E, 3E; Chemistry 1E, 2E; English 9abc; History 2E; Engineering 1abc, Engineering 3abc, Engineering 7c, Engineering 61abc.

Sophomore Year

Mathematics 4E, 5E, 6E; Physics 1E, 2E; English 10abc, English 16E, 17E, 18E; Engineering 4abc, Engineering 6abc, Engineering 22ac, Engineering 32bc, Engineering 62abc.

Sophomore Summer Term—Eight Weeks

Engineering 2s, Engineering 62s.

Coöperative Junior Year

English 11, Economics 1E, 2E, 3E; Mathematics 56, 57, 58; Engineering 5, Engineering 63, Engineering 93.

Senior Year

English 12abc; Business Administration 10E, 11E, 12E; Engineering 20c, Engineering 64abc, Engineering 74abc, Engineering 84abc.

III. S.B. IN CIVIL ENGINEERING

Freshman Year

Mathematics 1E, 2E, 3E; Chemistry 1E, 2E; English 9abc; History 2E; Engineering 1abc, Engineering 3abc, Engineering 7c, Engineering 11abc.

Sophomore Year

Mathematics 4E, 5E, 6E; Physics 1E, 2E; English 10abc, English 16E, 17E, 18E; Engineering 4abc, Engineering 6abc, Engineering 22a, Engineering 32bc.

Sophomore Summer Term—Eight Weeks in Camp

Engineering 2s, Engineering 23s.

Coöperative Junior Year

English 11; Economics 1E, 2E, 3E; Mathematics 56, 57, 58; *Geology 31; Engineering 5, Engineering 60, Engineering 90.

Senior Year

English 12abc; Business Administration 10E, 11E, 12E; Geology 18, 19, 20; Engineering 14abc, Engineering 24abc, Engineering 34abc, Engineering 44abc, Engineering 15-25-35-45abc.

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* Geology 31 is given in the first three coöperative periods; all other courses are continuous throughout the coöperative year.

VI. S.B. IN MECHANICAL ENGINEERING

Freshman Year

Mathematics 1E, 2E, 3E; Chemistry 1E, 2E; English 9abc; History 2E; Engineering 1abc, Engineering 3abc, Engineering 7c, Engineering 61abc.

Sophomore Year

Mathematics 4E, 5E, 6E; Physics 1E, 2E; English 10abc, English 16E, 17E, 18E; Engineering 4abc, Engineering 6abc, Engineering 22ac, Engineering 32bc, Engineering 62abc.

Sophomore Summer Term—Eight Weeks

Engineering 2s, Engineering 62s.

Coöperative Junior Year

English 11; Economics 1E, 2E, 3E; Mathematics 56, 57, 58; Engineering 5, Engineering 63, Engineering 93.

Senior Year

English 12abc; Business Administration 10E, 11E, 12E, Engineering 20c, Engineering 74bc, Engineering 94abc, Engineering 95a, Engineering 96abc.

THE SCHOOL OF EDUCATION

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

NATHAN WILSON WALKER,, A.B., Ed.M., *Acting Dean.*

THE ADMINISTRATIVE BOARD

MARCUS CICERO STEPHENS NOBLE,* *Professor of Pedagogy.*

NATHAN WILSON WALKER, A.B., Ed.M., *Professor of Secondary Education.*

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HOWARD WASHINGTON ODUM, Ph.D., *Kenan Professor of Sociology.*

ANDREW HENRY PATTERSON, A.M., *Professor of Physics.*

NOTE—The courses in Education listed in this catalogue are those given in the year of 1923-'24. A bulletin to be issued by the School of Education in the spring of 1924, will contain a complete list of the courses to be offered in 1924-'25. Students expecting to pursue courses in the School of Education should consult this bulletin before registering.

REQUIREMENTS FOR ADMISSION

See page 52.

EXPENSES

See page 61.

PURPOSES

The courses in education prepare for teaching and the executive work of principals and superintendents of schools. A number of courses are also offered which deal with popular education from

* Temporarily relieved of administrative duties, and on leave, 1923-1924.

the viewpoint of the citizen, whatever his occupation or profession. All courses in education carry college credit for the several degrees and at the same time enable those who successfully complete such courses to secure State certificates to teach or to administer schools, without further examination by the State.

Under the public law of the State all public school teachers, principals, superintendents, and supervisors must hold State certificates appropriate to their work. Full information concerning the requirements for the various certificates may be obtained from the Acting Dean; and prospective teachers, principals, superintendents and supervisors should secure this information before registering for courses in the School of Education.

FREE TUITION

By an act of the General Assembly of 1887, free tuition is given to teachers in the schools of North Carolina and to prospective teachers who are residents of the State. In order to secure free tuition, the student applying for the privilege must sign an agreement to teach in North Carolina for at least two years within a period of three years after leaving the University. This provision for free tuition is administered through the School of Education, and students availing themselves of the opportunity it affords are required to register through this school. This does not mean that all who avail themselves of the free tuition privilege for teachers shall register for the A.B. in Education; but it does mean that each one who takes advantage of this provision will be required to meet the professional requirements which the State now demands of one of his academic standing—that is, two professional courses for one who completes the sophomore year; four for one who completes the junior year; and six for one who completes the senior year. A student applying for the free tuition privilege, therefore, may register for either the A.B. degree in the College of Liberal Arts or for the A.B. in Education.

COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS IN EDUCATION

In order to be recommended for the Degree of Bachelor of Arts in Education, the student must have completed satisfactorily the four-year course outlined below.

At a meeting of the Administrative Board of the School of Education held on January 14th, 1924, some important changes were made in the academic requirements for the degree of A.B. in Education. These changes are (1) in the number of courses in foreign languages and in natural science required in the Freshman and Sophomore years and (2) in the system of electives in the Junior and Senior years.

Hitherto the curriculum requirements in the academic subjects have been the same as those of the College of Liberal Arts. The requirements in English, history, and mathematics remain unchanged. The changes are as follows:

(1) The requirement of three courses in each of two foreign languages in the Freshman and Sophomore years has been reduced to three courses in one foreign language, preferably Latin or French. Provision is made whereby a student may, on petition duly approved, offer some other language than Latin or French in fulfillment of this requirement.

(2) The requirement of two courses in one natural science hitherto required of Freshmen and Sophomore has been increased to four courses, two courses in each of the two branches, one of which shall be Physics or Chemistry.

(3) In the Junior and Senior years candidates for the degree of A.B. in Education will be required to choose their major study and their first minor from the branches represented in the program of studies in the secondary schools. For a major four courses will be required beyond the Sophomore year, and for a first minor two courses beyond the Sophomore year will be required. The remaining academic courses required are to be free electives.

Freshman and Sophomore Years

In the Freshman and Sophomore years the student must complete eighteen courses, as follows:

English	Three courses
Foreign Language	Three courses
History	Two courses
Mathematics	Two courses
Natural Science	Two courses in each of two branches
Education	Two courses
Elective	Two courses

Junior and Senior Years

In the Junior and Senior years the student must complete eighteen courses, as follows:

Academic Major	Four courses
Academic Minor	Two courses
Education	Seven courses
Elective	Five courses

Further details of the academic courses in the several departments that may be chosen to fulfil the requirements for the academic major and minor of the Junior and Senior years will be given in the the School of Education Bulletin No. 6 to be issued in the spring of 1924.

Regulations

Candidates for the Degree of Bachelor of Arts in Education must complete satisfactorily 36 full courses.

In order to meet the requirements of the State Department of Education all student intending to teach in the high schools of the State, whether candidates for A.B. in Education or not, are required to take Education 51, Education 52, or their equivalent, and two, or four other courses in Education, the total number depending upon the class of certificate for which they wish to apply. All candidates for A.B. in Education are, therefore, required to select Education 51 and Education 52 as two of the required seven courses in Junior and Senior years.

Each student accepting the teacher's free tuition privilige must complete in the School of Education the number of professional courses required by the State Department of Education for that grade of certificate to which his academic standing would entitle him. The grades of certificates issued and the academic and professional requirements for each are as follows:

Class of Certificate	College Courses	Professional Courses
A	36 (including)	6
B	27 (including)	4
C	18 (including)	2

All courses must be approved by the Acting Dean before they are accepted by the Registrar.

BUREAU OF EDUCATIONAL RESEARCH

The Bureau of Educational Research was organized in the School of Education on July 1, 1923, for the purpose of conducting and encouraging scientific research in the public schools of the State of North Carolina. This Bureau serves as a clearing-house for exact information about educational conditions in the State, collects and assembles the results of investigations conducted by other agencies dealing with school work, and carries on independent studies of a scientific nature. Standard scales and tests for measuring the work of the schools may be purchased at cost through the Bureau.

The staff of the Bureau it at present composed of the professors in the School of Education and one Statistical Assistant. The Bureau is equipped to conduct surveys of any phase of school efficiency, and its services are given without charge to public schools in the State. Schools in other states will be charged a reasonable price for services rendered. Correspondence regarding investigations should be addressed to Dr. M. R. Trabue, Director of the Bureau of Educational Research.

TEACHERS' BUREAU

The School of Education conducts a teachers' bureau which is at the service of teachers and school officials without any cost to them whatsoever. The annual registration of teachers runs from 300 to 500, most of whom register with it in the Summer School.

THE HIGH SCHOOL JOURNAL

The *High School Journal* is published eight times a year by the School of Education. All the professors in the school contribute to its columns, as do other members of the University faculty. The subscription price is $1.50 a year. The Editorial Board is composed of the professors in the School of Education.

THE MURPHEY CLUB

The Murphey Club is an informal organization of the students and faculty of the School of Education for the study of current educational problems. The Club holds monthly meetings throughout the college year.

CONSPECTUS OF COURSES IN EDUCATION, 1923-1924

Cat. No. of Course	Descriptive Title	Credit	Classification	Instructor	When Given
1	Fundamentals of Education	1	Psychology	Jordan	F-W-S
2	Principles of Education	1	Principles	Walker	S
5	Library Administration	½	Methods	Wilson	W
20	Educational Psychology	1	Psychology	Jordan	F W
26	Public Education in the South	1	History	Knight	F W
31	Rural School Organization and Administration	1	Principles	Knight	F
36	Foundations of Modern Education	1	History	Knight	W
37	History of American Education	1	History	Knight	S
42	The Elementary School Principalship	1	Principles	Trabue	S
43	The Elements of Statistical Methods	1	Psychology	Trabue and Jordan	W
46	Classroom Management	1	Methods	Trabue	W
51	Principles of Secondary Education	1	Principles	Walker	F W
52	General Methods in Secondary Education	1	Methods	Walker	W S
55	Social Policy and Education	1	Principles	Walker	F
56	Tests and Measurements in Secondary Education	1	Psychology	Jordan	S
62	Tests and Measurements in Elementary Education	1	Psychology	Jordan	S
64	Mental Measurements	1	Psychology	Jordan	S
101	Problems in Secondary Education	½, 1, or 1 ½	Graduate	Walker	F-W-S
103	Problems in Educational Administration	½, 1, or 1 ½	Graduate	Trabue	F-W-S
104	Problems in Educational Measurements	½, 1, or 1 ½	Graduate	Trabue and Jordan	F-W-S
110	Problems in Educational Psychology	½, 1, or 1 ½	Graduate	Jordan	F-W-S
126	Foundations of Education	½, 1, or 1 ½	Graduate	Knight	F-W-S

CORRESPONDENCE INSTRUCTION IN EDUCATION

The following courses may be given by correspondence:

C2a. (The first half of Education 2.)

C26. (Education 26.)

C31. (Education 31.)

C51a. (The first half of Education 51.)

C51b. (The second half of Education 51.)

C52a. (The first half of Education 52.)

C52b. (The second half of Education 52.)

NOTE: Either half of Education 51 or 52 may be taken by correspondence, but not both halves. If either half is taken by correspondence, the other half must be taken in the Summer School.

C62b. (The second half of Education 62.)

EXTENSION CLASSES IN EDUCATION

The School of Education is prepared to conduct through the Extension Division extension courses in Education in the cities and towns of the State. The same credit is given for these extension classes as for residence work, provided the University entrance requirements are met. Groups wishing to organize extension classes should send in their applications early. The minimum number of students for which the Extension Division is willing to organize a class is usually held at fifteen. The request for such a class should be accompanied by a full statement of the probable enrollment, the general type of persons who wish to take the course, how frequently the class wishes to meet, where it will meet, who will have charge of the local organization arrangements, and what particular course is desired.

For full particulars, address either the Director of the Extension Division or the Acting Dean of the School of Education.

COURSES OF INSTRUCTION

The courses offered in the School of Education are elective for students in the College of Liberal Arts and others. These courses are described in the section of the catalogue which is devoted to the description of courses.

THE SCHOOL OF COMMERCE

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

DUDLEY DEWITT CARROLL, M.A., *Dean.*

CLAUDIUS TEMPLE MURCHISON, Ph.D., *Director of Research.*

WALTER JEFFRIES MATHERLY, M.A., *Director of Extension Service.*

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WILLIAM WHATLEY PIERSON, Ph.D., *Professor of History and Government.*

STURGIS ELLENO LEAVITT, Ph.D., *Professor of Spanish.*

CLAUDIUS TEMPLE MURCHISON, Ph.D., *Professor of Applied Economics.*

THOMAS LATIMER KIBLER, *Professor of Economics and Transportation.*

ERLE EWART PEACOCK, A.B., M.B.A., *Professor of Accounting.*

WALTER JEFFRIES MATHERLY, M.A., *Professor of Business Administration.*

ERICH WALTER ZIMMERMAN, Ph.D., *Associate Professor of Commerce and Resources.*

EDMUND BROWN, JR., Ph.D., *Associate Professor of Marketing.*

CORYDON PERRY SPRUILL, JR., A.B., B.Lit., *Assistant Professor of Economics.*

CHARLES HENRY FERNALD, A.B., M.A., *Assistant Professor of Sales Relations.*

GENERAL STATEMENT

Though courses of instruction in Economics and in certain business subjects have been offered for many years in the University of North Carolina, not until 1919 was there established a comprehensive, well-organized business curriculum. In that year, the Legislature, in conformity with the recommendations of the President and the Board of Trustees, enacted the legislation which resulted in the immediate organization of the School of Commerce.

The School occupies a place in the University organization which is coördinate in standing and equipment with the College of Liberal Arts, the School of Applied Science, etc.

The undergraduate course of study, leading to the degree of Bachelor of Science in Commerce, covers a period of four years and is designed to give a foundation of broad and general culture, and, at the same time, supply a definite and practical training to those who intend to engage in any of the great lines of industrial and commercial activity. For those desiring more intensive specialization, the School of Commerce offers graduate courses leading to the degree of Master of Science in Commerce.

AIM AND PURPOSE

The phenomenal industrial growth of the South in recent years has produced an imperative need for trained business men. The School of Commerce in a large sense is the expression of the University's desire to serve this special need of its own particular section. To this end substantial support has been accorded the School both by the University and the State as a whole. In consequence the School has been provided with a large and able corps of instructors, with spacious quarters in Saunders Hall, and thoroughly modern teaching facilities.

It is the purpose of the School of Commerce to provide its students with as thorough and scientific business training as it is possible to give within the range of the subjects which it attempts to cover. Its teaching policy assumes that such training should consist not only of the requisite understanding of the principles and methodology which govern the organization and administration of typical business enterprises, but in addition an understanding of the problems and the larger relationships of the economic organization as a whole. In his attempt to master the technical and the vocational aspects of business, the student will not be permitted to lose sight of the social and cultural.

The School of Commerce has also accepted as an important guiding principle the advisability of giving prominent place to the dynamic elements in the business world. Specialization, standardization, and ever-increasing magnitude of the business unit, though the order of the day and the sure manifestation of industrial progress, yet have served greatly to strengthen the forces of economic change. Inter-dependence breeds instability. Just as no business can stand alone, so no technological process, no mechanical device,

no rule-of-thumb formula, is fixed except for the day. The constant flux of prices, wages, profits, industrial relations, and the whole category of business methods, imposes upon the executive as one of his most persistent and exacting duties the necessity of unceasing readjustment and modification of almost all aspects of his business. It is in relation to such problems as these changes may produce that the highest order of business judgment must be displayed.

TEACHING POLICY

Wherever possible, the plan is followed of presenting the subject matter of the various courses from the point of view of the executive, always bearing in mind that the executive's field of interest includes the broad outside relationships as well as the internal administration of his business. Adherence to this common point of view prevents confusion in the mind of the student, and enables him to place the problems and practices of business in their true perspective.

Within the short space of time at his disposal, it is impossible for the student to investigate in detail the entire field of business. It is therefore the policy of the School of Commerce to supplement the general survey which is required of every student with a more intensive study of that portion of the field which is of especial interest to him. To this end there have been prepared for the student certain groupings of closely related courses. The groupings have been made in such a way as to correspond to certain major functions which must be performed in the successful administration of a business enterprise.

These functions may be designated as follows: (1) The administration of production; (2) the management of finance; (3) marketing and selling; (4) management of personnel; (5) the avoidance or distribution of risk; (6) dealing with problems of transportation; (7) conforming with legal requirements; (8) handling the problem of accounting.

In addition to the eight groups of courses which have been constructed to conform to these business functions, there have been provided three other groups. The first of these offers special study in the field of foreign trade. It is so devised as to be of value not only to those intending to engage in some branch of export or import trade, but also to be of material aid to those looking forward to careers in connection with the consular service.

The second of these special groups has been prepared in response to the rapidly growing interest in scientific municipal administration, and the widening opportunity for professional careers in the field of city management.

The third of the special groups is intended for those desirous of becoming teachers of commercial subjects. Among the preparatory and business schools of the south the need for well qualified instructors to teach business subjects is exceptionally acute.

SCOPE OF SPECIALIZATION

Specialization in the manner here indicated does not begin until the Junior year. During his Freshman and Sophomore years, the student is expected to follow a well-defined path of study substantially similar to that pursued in a liberal arts course. This requirements is based on the belief that a foundation of a broad cultural nature is necessary for every type of business training. The first year's work consists of courses in English, Mathematics, History, Industrial and Commercial Geography, Economic Resources, and a modern language. In the second year are required courses in general Economics, Industrial History, English and American literature, together with courses in modern language and a natural science.

Even in the Junior year, each student regardless of special interests, is required to take certain basic courses, as for example, accounting, business organization, money and banking, and principles and methods of modern government. Additional requirements are courses in psychology, business law, and theories of economic reform.

It is at once obvious that this arrangement permits of only a fair amount of specialization within the period of undergraduate work. In consequence it is strongly urged that those desirous of obtaining more intensive and specialized training plan for at least one year of graduate study.

REQUIREMENTS FOR ADMISSION

See page 52.

COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN COMMERCE

The degree of Bachelor of Science in Commerce will be conferred upon students who satisfy the entrance requirements and complete the four-year course as outlined below.

The work in the Freshman and Sophomore years is the same in all the courses of study, unless otherwise indicated, and is as follows:

Freshman Year

English 1
Mathematics 1-2
History 1-2
Geology 5
Commerce A
French 3-4, or
Spanish 3-4, or
German 3-4

Sophomore Year

English 3-4
Economics 1-2
Economics 5
Zoology 1-2, or
Botany 1-2, or
Chemistry 1-2, or
Physics 1-2, or
Geology 1-2
French 5, 9, or
Spanish 5, 9, or
German 21, 31

In order that the Junior and Senior subjects may be chosen in such a way as to constitute a coherent and comprehensive whole, rather than an unrelated and scattered series, the following study groups have been devised. Each student is expected to elect at the beginning of his Junior year the group which best serves his needs and adhere to it. Any changes must be approved by the Administrative Board of the School.

I. FACTORY ORGANIZATION AND ADMINISTRATION

Coördinating raw materials, equipment, and labor in the efficient production of a salable product is an intricate science and a fascinating art. Knowledge of types of organization, ways of financing, methods of control, and tests of efficiency are the necessary equipment of the modern business executive.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 5
Commerce 11
Commerce 12
Commerce 14
Commerce 32
Commerce 60-61
Commerce 62
Economics 40
Psychology 35
or
Economics 30

II. BANKING AND FINANCE

The mobilization of the financial and credit resources of a business community and their direction into sound productive channels of investment is a task of extreme delicacy and serious responsibility. To serve successfully and safely in this field, one should be equipped with a knowledge of the nature of banking and credit as well as an acquaintanceship with the methods of judging business trends and testing financial integrity.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 12
Commerce 30
Commerce 31
Commerce 32
Commerce 35
Commerce 60-61
Commerce 62
Commerce 5
or
Commerce 36
Economics 12
Economics 40

III. MARKETING

The great success which has been achieved in turning out manufactured articles and agricultural products has been sacrificed in many instances by crude and awkward marketing and shipping methods. Standardizing, grading, packing, ready and safe procedure to destination at fair rates are the essentials in this vital matter. The South is particularly in need of intelligent leadership here.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Economics 24
Commerce 41
Commerce 42
Economics 26
Commerce 32
Commerce 60-61
Commerce 62
Economics 40
Economics 15
or
Economics 12
or
Commerce 46

IV. ADVERTISING AND SALESMANSHIP

A worthy product and an eager buyer may never be united merely because the mind of the buyer was never explored or the virtues of the product never systematically studied and forcefully presented. Developing interest in a prospective customer, careful choice of convincing language, strategic advance toward a favorable decision are processes which we owe a product in which we have faith.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 20
Commerce 21
Commerce 22
Commerce 60-61
Commerce 62
Commerce 32
Commerce 40
or
Economics 12
Economics 40
Psychology 36
English 20

V. MERCHANDISING

This field is going through a very rapid and significant transition. The organization and operation of department and chain stores are fast giving rise to a science of merchandising. The purchase, care, financing, and sale of goods is a complicated task in which blundering and inefficiency have long burdened society. Mastery in this activity is well worth the careful study it will require.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 20
Commerce 21
Commerce 22
Commerce 23
Commerce 24
Commerce 60-61
Commerce 62
Commerce 32
Economics 24
or
Commerce 12
Economics 12
Economics 40

VI. PERSONNEL MANAGEMENT

The selection, promotion, and care of the human element in industry is just establishing itself as a distinct task. The enormous losses in labor turnover, in the misfits of persons to tasks, in the misunderstanding and conflicts between employer and employee, have led at last to belated but earnest study of this problem. In combining profitable business and far-sighted philanthropy, the profession of personnel manager promises to take high rank.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 11
Commerce 14
Commerce 32
Commerce 60-61
Commerce 62
Economics 30
Economics 40
Psychology 35
Sociology 1
Sociology 7
or
Psychology 30

VII. RISK-BEARING AND INSURANCE

As industry and trade grow more complex and the hazards of change and uncertainty increase, the problem of meeting and distributing risk becomes a vital matter in business administration. The protection of the individual against the risk of sickness and death is also of increasing concern to the business world. The correct computation of risk, the economical collection of premiums, and the safe and productive investment of funds are the outstanding functions in this field.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Economics 20
Commerce 38
Economics 40
Commerce 32
Commerce 36
Commerce 60-61
Commerce 62
Economics 12
and
Commerce 12
or
Commerce 20
and
Commerce 22

VIII. TRANSPORTATION AND SHIPPING

As production is concentrated more and more in great industrial centers, the problem of cheap and efficient transportation of raw materials to factories, and of finished products to the markets is increasingly vital. The welfare of every community and the economic development of every section depend on adequate and ready shipping facilities at fair and reasonable rates.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Economics 15
Economics 40
Commerce 11
Commerce 50
Commerce 51
Commerce 60-61
Commerce 62
Economics 24
Economics 26
Commerce 32

IX. BUSINESS LAW

The complicated legal phases of modern business, together with the increasingly intricate relations between government and industry, call for more lawyers who are trained in the fundamentals of our economic life. A person who is unfamiliar with the relations and methods of our business operations can hardly hope to succeed in business law, which is one of the most lucrative and useful types of legal practice. This course offers an excellent foundation for legal training.

Junior Year

Commerce 1-2
Commerce 10
Phychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 7
Commerce 12
Commerce 36
Economics 13-14
Economics 40
Government 11
Commerce 62
Philosophy 10-11-12
Economics 15
or
Commerce 32

X. ACCOUNTANCY

The profession of Certified Public Accountant is now recognized not only as one of the most lucrative but one of the most useful lines of work. The tragedy of business failure may often be avoided by the application of the principles of scientific accounting. The government also requires an increasing host of trained accountants in its tax operations. A combination of accounting, business law, business organization, and corporation finance constitute the leading elements in this field.

Commerce 1-2
Commerce 3
Commerce 4
Commerce 10

Junior Year

Commerce 12
Economics 10
Economics 11
Psychology 1-2

Senior Year

Commerce 5
Commerce 6
Commerce 7
Commerce 8
Commerce 60-61

Commerce 62
Government 1-2
Economics 40
English 20

XI. FOREIGN TRADE AND THE CONSULAR SERVICE

The transition in our foreign trade from the easy sale of raw materials and food products by the past generation to the rigorous competition with skilled and experienced foreigners in the sale of manufactured commodities compels us to understand the processes and technique involved in the difficult task of selling in other countries. Knowledge of the different languages, tastes, customs, and traditions, as well as the niceties of diplomacy, is requisite here. The delicate forces which turn the tide for or against us certainly cannot be understood by superficial observation.

Commerce 1-2
Commerce 10
Phychology 1-2

Junior Year

Economics 10
Economics 11
Government 1-2

Senior Year

Economics 26
Commerce 46
Commerce 51
Commerce 20
Commerce 60-61
Commerce 62
Commerce 35
Economics 40

Commerce 47
and
Commerce 32
or
History 10-11
or
An Additional Modern Language

XII. MUNICIPAL ADMINISTRATION

A discriminating critic of American life has said that the weakest spot in our national life is city government. This is largely due to our persistence in looking at municipal government as a matter of partisan political control rather than as a highly technical business proposition. The great need is a thorough-going organization and management of city affairs in the light of sound business procedure. To get essential municipal functions performed efficiently and at the lowest cost to taxpayers calls for a vigorous combination of scientific business and engineering principles.

NOTE: a. Freshmen are required to take Mechanical Drawing 1a.b.c. in addition to the regular work.

b. Sophomores take Plane Surveying and Map Making in addition to the regular work.

Junior Year

Commerce 1-2
Commerce 10
Government 1-2
Psychology 1-2
Engineering 37C
Engineering 38C
Engineering 70C

Senior Year

Commerce 9
Commerce 11
Commerce 60-61
Commerce 62
Government 9
Economics 13-14
Economics 40
Psychology 30
Sociology 8
or
Commerce 14

XIII. COMMERCIAL TEACHING

A large percentage of high school students never go to college; it is, therefore, important that some competent instruction in elementary economics and commerce be offered in the secondary schools. The course of study outlined below will qualify those who complete it for the state high school teachers' certificate in North Carolina and should prepare for the teaching of the following subjects: bookkeeping and elementary accounting, elementary economics, commercial geography, civics, salesmanship, etc.

Junior Year

Commerce 1-2
Commerce 10
Psychology 1-2
Economics 10
Economics 11
Government 1-2

Senior Year

Commerce 60-61
Commerce 62
Economics 40
Education 1
Education 2
Education 51
Education 52

Select two courses from the following:
- Education 20
- Psychology 35, 36
- Commerce 41
- Commerce 11
- Commerce 12
- Rural Economics 1, 2, 3
- Economics 20, 24, 100-a, 100-b
- Commerce 20, 21, 22, 23, 5, 6, 30, 31, 32, 47.

GRADUATE WORK AND DEGREES

The School of Commerce is prepared to offer graduate work in the special fields covered by the study groups as outlined above. At present no graduate degree is offered other than that of Master of Science in Commerce. Candidacy for this degree is conditioned upon the holding of a B.S. in Commerce degree from this institution, or from another institution of approved standing where the work required in commerce is of substantially the same nature and volume. Graduates of other instituions unable to meet these conditions will find it advisable to register in the Graduate School of the University under the Department of Economics as candidates for the degree of Master of Arts, since many of the commerce courses are credited toward this degree. The same procedure is recommended for those desirous of becoming candidates for the Doctor's degree with business as the subject of major interest.

Graduates of other institutions desiring to enter the School of Commerce as candidates for higher degrees should submit their records together with application for entrance to the Dean of the Graduate School.

The conferring of the graduate degree assumes as a minimum the completion of nine full courses or their equivalent as approved by the Dean, a residence period of at least one year, and the completion of a thesis which embodies the results of original research work on the part of the students. (For further details see the catalogue of the Graduate School).

Special library and study facilities are available for graduate students. They have the exclusive use of the Commerce seminar room, where they may have private desk space and work undisturbed with the requisite materials immediately at hand.

SPECIAL STUDENTS

There are many young people already in business who feel the need of additional special training but who are unable to spend the full four years at the University, or who cannot present the necessary entrance credits. Recognizing this, the School of Commerce will admit students of twenty-one years of age, or over, who cannot fulfill the entrance requirements, as special students, but not as candidates for degree. Such students must supply satisfactory evidence of their ability to profit from the courses.

FELLOWSHIPS

At least two fellowships of an annual value of five hundred dollars each are annually available for graduate students in commerce. Their assignment is conditioned on excellence in scholarship, and the possession by the student of industry and initiative. The School reserves the right to call upon its Fellows for aid in giving instruction, or for other departmental duties of an academic nature, but will not require for such purposes more than one-third of their time.

LABORATORY ASSISTANTS

Certain laboratory assistants are selected from the student members of the School each year to aid in the accounting, economic resources, and advertising laboratories. Compensation is provided according to agreement at the time of appointment.

LIBRARY FACILITIES

In addition to the facilities afforded by the General Library of the University, the School of Commerce is equipped with its own special library in Saunders Hall. In the latter are contained practically all of the economic and business publications of recent years which may be of value to the student. An appropriation of $1000 annually assures that the collection will be well-maintained and kept up-to-date.

Especially noteworthy is the collection of periodical publications. All of the important periodicals in the general field of business and finance are regularly received. In addition, the School of Commerce is a regular subscriber to over fifty trade journals, and to the statistical services of the Babson Institute and the Standard Statistics Company.

LECTURES AND OBSERVATION TRIPS

Students are expected to take advantage of the frequent opportunities to hear lectures offered by prominent business men who are invited to the University for this purpose. These lectures will prove of great value to the student in furthering his acquaintance with the practical aspects of business.

From time to time the classes in business subjects make visits to neighboring factories and other types of business institutions for the purpose of making first-hand studies of organization and administrative methods.

APPRENTICESHIPS

During the summer between the Junior and Senior years each student will be expected to spend his time working in an establishment in the line of business for which he is preparing. This may begin in the summer following the Sophomore year. An effort will be made to assist students in securing such opportunities for the summer. However, the School must not regarded as an employment agency, as one of the most valuable experiences in training for business comes from locating opportunities for one's self. The University itself, in its business aspects, will be used as a working laboratory. Wherever possible, each student before graduation, will be required to make a careful analysis of a going concern in the field of his practical interest.

STENOGRAPHY

No credit toward the degree is given for stenography but every student is urged to acquire facility in the use of it before graduation. Instruction in this subject is not offered by the University but can be secured in Chapel Hill in a private school.

COMMERCE CLUB

This is an organization of advanced students and faculty members formed for the purpose of studying and discussing practical current business problems and tendencies. Meetings are held every two weeks on Monday evenings. Members are elected on the basis of demonstrated interest in the purposes of the Club and ability to contribute to its discussions.

STANDARDS OF WORK

The School has been admitted to membership in the American Association of Collegiate Schools of Business. This is an organization formed for the promotion of thorough-going, scientific train-

ing for the business profession. It maintains high standards of membership based on the number and training of the faculty, the thoroughness of the work, the length and breadth of the curriculum, number of students, the financial backing of the school, and the facilities for carrying on the work.

STUDENT HABITS

Training for business, if it is to be worthy of the name, should include at least two elements: first, an understanding of the principles and processes of business; and second, the practice of habits of work essential to business success. Observation appears to justify the conclusion that promptness, industry, systematic application, and honest performance are quite as vital to mastery in the business world as an understanding of the nature of industrial and commercial phenomena. It is wasteful, then, to allow students to proceed far in this field if they are unwilling to fashion their habits in conformity with these essential requirements. The policy of the School will be to drop from its rolls any student who fails to respond to the above standards.

THE SCHOOL OF PUBLIC WELFARE

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

HOWARD WASHINGTON ODUM, Ph.D., Director of the School of *Public Welfare.*

THE ADMINISTRATIVE BOARD

CHARLES STAPLES MANGUM, A.B., M.D., *Professor of Anatomy.*

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EUGENE CUNNINGHAM BRANSON, A.M., Litt.D., *Kenan Professor of Rural Social Economics.*

JESSE FREDERICK STEINER, Ph.D., *Professor of Social Technology.*

HARRY WOLVEN CRANE, Ph.D., *Professor of Psychology and Psychopathologist for the State Department of Public Welfare.*

HAROLD DIEDRICH MEYER, A.M., *Associate Professor of Sociology.*

SPECIAL STAFF

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HARRY WOLVEN CRANE, Ph.D., *Professor of Psychology and Psycho-Pathologist for the State Board of Public Welfare.*

HAROLD DIEDRICH MEYER, A.M., *Associate Professor of Sociology and Supervisor of Recreation.*

WILEY BRITTON SANDERS, A.M., *Assistant Professor of Sociology and Supervisor of Family Case Work.*

HISTORICAL STATEMENT

The School of Public Welfare of the University of North Carolina was authorized by the Board of Trustees at their mid-year meeting in January, 1920, on the recommendation of President

Harry Woodburn Chase. The recommendation was made with the needs both of the college and the extension service of the University in mind and with the thought that such a School of Public Welfare would be built up around the Department of Sociology. In his report to the trustees, President Chase said:

"Nothing is more clear than that, if the citizenship of state and nation is to grapple successfully with the ever more complex problems of modern democracy, if popular government is to work effectively in these confusing times, our educational system as a whole must stress as never before the instruction of our youth in matters of common weal. A knowledge of the fundamental law of society, of what democracy really means and what its problems are, a spirit of social-mindedness which leads the individual to look beyond himself and to think of himself in relation to his community—these things are more and more requisite for good citizenship. The social sciences, including economics, history, government, and sociology in its various aspects, must receive a new and more intense emphasis in the higher education of the future. North Carolina, feeling her way towards the solution of new social problems, consequent upon the growing complexity of her life, with a new program of social legislation, needs, and will need, leaders well trained in the fundamentals of their task. The proposed School of Public Welfare should help train such leaders, should offer short courses for workers in service, and should, in coöperation with state and national agencies, render assistance to the cause of public health, to superintendents of public welfare, Red Cross workers, secretaries of chambers of commerce and board of trade, to school systems in their special problems, to bureaus of community recreation—in short, it should both correlate and make distinctive additions to the contributions which the University can render to the development of the human wealth in North Carolina."

THE GENERAL PLAN OF WORK

In accordance, therefore, with the purposes of the School as set forth by the President and Trustees of the University plans for effective organization were begun and tasks entered upon during the Summer School of 1920. To meet the specific needs of the State and the University, and to some extent the South, a four-fold service was planned. The *first* emphasizes *instruction* in Sociology and Social Problems, including teaching in the College and University, extension teaching through the Bureau of Extension for

outside communities, and through general instruction and promotion of citizenship. The *second* emphasizes *training for special work and community leadership,* with special reference to town, village and rural communities, and with special application to the State of North Carolina and the South. This division hopes to meet the very urgent demands of the State for trained men and women for its county superintendents of public welfare and other official positions and of many communities throughout the South for Red Cross secretaries and other community workers in the mill village and elsewhere. The *third* aspect of the work emphasizes direct and indirect *community service,* or social engineering through the avenues of community leaders, county superintendents of public welfare, local and district conferences, and community planning for leaders, industrial managers, and others. The *fourth* aspect emphasizes social research, scientific inquiry, and publication of results estimated to be of value to the State, the University, and to the general public welfare and social progress. A *fifth* general purpose, kept constantly in the foreground, provides that the School maintain close and cordial coöperation with the State Department of Public Welfare, with other State departments of public service, with other departments and school of the University, and with local and national voluntary agencies.

UNIVERSITY ORGANIZATION

In the classification of services just described it is important to keep in mind the larger two-fold nature of the work. Instruction in the college and University, together with research into social problems constitute the primary function of the Department of Sociology; while training for professional social work, extension services, and assistance in coördinating and perfecting public services, mark the primary work of the School of Public Welfare as an integral administrative unit of the University. The work of the Department of Sociology is credited like that of other Departments in the College of Liberal Arts and other Schools, and may be counted toward the several degrees. The graduate degrees given in the School of Public Welfare, with Majors in Sociology or social work, are granted through the Graduate School of the University, as are all other graduate degrees. The University believes that professional training for social work and community leadership will make substantial progress in the projection of the ideals of a university professional school into the practical pro-

grams of public welfare. These ideals include: A standard curriculum of permanent and administrative unity; a special faculty of trained teachers; a faculty of coöperating university professors; the large university faculties and influence; a group of students well prepared and possessing the personality and character for leadership; a program of field work which provides adequate training and contributes to community building; the support of an enthusiastic and informed constituency; cordial coöperation with departments of public service and with private enterprise; the spirit of scientific and constructive work characteristic of the best educational statesmanship.

THE PLAN OF INSTRUCTION

In planning the courses of instruction, two important considerations have been kept constantly in mind: The first is to provide the necessary courses in social theory and applied sociology for the student who wishes to major in Sociology or to elect subjects from this Department adequate for his purposes. The second consideration has in mind the necessary background, philosophy, and technique prerequisite to the preparation for social work in the larger and more effective way. In the first group, courses consist largely of the study of the history and theory of society, together with special problems like immigration, social pathology, penalogy, the negro problem, statistics, and social research and seminars on special topics assigned to the student. Such courses may be elected by college students and counted toward other degrees, or they may be elected and coördinated with the special courses for the training for professional social work.

In the group of courses prepared especially for the training of social workers and community leaders the institutions and institutional modes of life are the centers around which are built the instruction and field work required of all who select this plan of preparation. The six fundamental institutional modes of life emphasized are: The home and family; the school and education; the church and religion; the State and government; industry and work; the community and association. No courses are offered in the field of religion and the church, but courses in Philosophy may be elected if desired, and the place of the church is treated thoroughly in all courses in community organization and community work, as well as in courses dealing with social theory and organization. The plan of instruction, then, follows the division set forth below:

I. General Social Theory.
II. The Home and Family.
III. The Community and Association.
IV. The State, Government, and Public Institutions.
V. The School and Education.
VI. Industry and Work.
VII. Methods of Organization and Administration.
VIII. Field Work.
IX. Summer Institutes of Public Welfare.

In each of these divisions courses listed are correlated with other courses, both in the Department of Sociology and the School of Public Welfare, and in the Departments of Economics, Government, Psychology and the Schools of Education and Commerce. The courses tending more nearly to specialization in industrial management and industrial welfare will be strengthened as the demand increases to include a large number from which to choose. In making plans for enrolling or electing courses the student should make special inquiry to ascertain whether all courses listed are given during any specific year. The exact statement of term courses is given where possible, but the special needs of students, together with other considerations, make it advisable to allow some flexibility in arranging final schedules.

CANDIDATES FOR GRADUATE DEGREES

It is especially desired that those graduate students who are pursuing courses leading to the Master's degree, if they major in Sociology or Social Work, select a minor from the fields of Rural Social Science, Economics, Government, Education, or History. To those who major in those subjects a special invitation is extended to select a minor in Sociology. This degree may be obtained in one year if the applicant is well prepared and does effective work. For those teaching fellows or others who desire to do two or more years of work, or for those who are candidates for the Doctor's degree an excellent program can be mapped out. Much of the best work is done and many of the strongest leaders and educators are developed through such a correlation of the work of the several Departments of Social Science. In each of these fields North Carolina is rich in available opportunities for research and leadership and the several Departments are well equipped to do work of the highest

order. In the announcements that follow reference is made to the several Departments and selected courses listed to indicate the opportunities for appropriate electives in other Departments.

PUBLIC OFFICIALS AND OTHER TRAINED WORKERS

Of special interest to Municipal and County Officers, especially city managers, is the new course just announced for municipal officials. This course, given in the School of Commerce, provides for a well rounded series of electives combining courses in the School of Public Welfare and in education with the work done in the School of Commerce and drawing generously on the Departments of Economics, Sociology, and Civil Engineering. The Freshman and Sophomore classes are provided with the usual standard courses in languages, history, mathematics, and prerequisite physical sciences. There is, perhaps, no greater field of need and opportunity to-day than in this field for business managers of municipal and county governments.

But other officials will be equally interested; and students graduating and looking forward to careers of promise should be interested in many of the courses; the judge of the juvenile court; the county commissioners; members of boards of schools and other institutions; county superintendents of public welfare; county demonstration agents; county health officers; community service executives; teachers for schools for adults; and many other public officials of state, county, and municipality.

In the days to come the *visiting teacher* will prove to be one of the most important of all public service individuals and will find in training for community work the basis for outstanding success. The visiting teacher has been described as the agent of adjustment of conditions in the lives of individual children to the end that they may make more normal progress; and this end is attained by visits first to the school, then to the home, then to the county superintendent of public welfare or other coöperating agency, thus gathering up the loose threads and focussing them upon home, school, and community. No less than special classes the school of democracy will have its visiting teachers alongside the superintendent of public welfare to help make democracy real in the unequal places.

THE SCOPE OF PROFESSIONAL COURSES

In addition to the regular graduate degree and the special courses selected and combined to meet the needs of special public officials, the following types of courses are given. Details of these may be gained from subsequent descriptions.

I. A one year course of professional training consisting of two quarters in residence and one quarter in field work under supervision. This course is open to graduates of colleges of good standing. In addition to the specialized field work required during the third quarter, students taking this course will carry on field work in counties adjacent to the University during the two quarters in residence. A certificate will be issued upon completion of this course.

II. A two years' course of professional training. The first year of this course is identical with the one year course. It will be followed by another year both in residence and in the field. Courses during the second year are designed for more intensive specialization and research and for more responsible administrative and executive work. A diploma will be issued upon completion of this course.

III. A four year collegiate course, leading to the bachelor's degree with major in Sociology or social work is available for undergraduates and especially adapted to those who wish to prepare for special leadership in educational and administrative work in this field. It also makes the student thus graduating eligible for the advanced pure graduate course in Social Work and Administration.

IV. Special courses of one, two or three quarters arranged for students desiring to do special research or short time work. Students not eligible to the regular courses by reason of not holding a degree may be admitted to these special courses as *special students* provided they have had sufficient general education and practical experience to insure satisfactory work.

V. Summer institutes, arranged for special groups including superintendents of public welfare, county directors of community recreation, Red Cross secretaries, teachers and principals interested specially in community work, and others.

For further particulars concerning scholarships, fellowships, publication, courses, and other details see the special Bulletin of the School of Public Welfare, issued in January; see also the announcement of courses in the Department of Sociology.

THE GRADUATE SCHOOL

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

EDWIN GREENLAW, Ph.D., *Dean.*

THE ADMINISTRATIVE BOARD

WILLIAM DEBERNIERE MACNIDER, M.D., *Kenan Professor of Pharmacology.*

WILLIAM CHAMBERS COKER, Ph.D., *Kenan Professor of Botany.*

WILLIAM MORTON DEY, Ph.D., *Professor of the Romance Languages and Literatures.*

*PARKER HAYWARD DAGGETT, S.B., *Professor of Electrical Engineering.*

JAMES MUNSIE BELL, Ph.D., *Smith Professor of Chemistry.*

EDGAR WALLACE KNIGHT, Ph.D., *Professor of Rural Education.*

WILLIAM WHATLEY PIERSON, JR., Ph.D., *Professor of History.*

CLAUDIUS TEMPLE MURCHISON, Ph.D., *Professor of Applied Economics.*

GUSTAVE ADOLPHUS HARRER, Ph.D., *Associate Professor of Latin.*

The Graduate School finds its province in the fostering of research, in training students to become investigators and teachers in special fields of learning, and in supplying opportunity for further study to those who have already completed a college course. The University of North Carolina has been interested in research for more than a century, and has made noteworthy contributions in science, history, and the languages. Through its research clubs and learned journals, as well as through publications and other contributions to learning made by members of its faculty, the University has acquired the authority to give advanced instruction. For this it is competent both from the standpoint of the personnel of its faculty and in material equipment in libraries and laboratories.

Work for advanced degrees is under the supervision of the Graduate Faculty, which consists of those officers of professorial rank who are chiefly interested in the Graduate School, either because they offer courses for graduate students or because of their

* Absent on leave on the Kenan Foundation, 1923-1924.

interest in research. The immediate direction of the Graduate School is in charge of an Administrative Board, of which the Dean is chairman.

ADMISSION TO THE GRADUATE SCHOOL

Holders of bachelor's or higher degrees from standard colleges are admitted to the Graduate School upon presentation of their credentials and without examination. Upon the vote of the Administrative Board other mature persons may be admitted as special students in courses for which they are qualified. Admission to the Graduate School does not imply admission to candidacy for a higher degree, nor does it guarantee that the master's degree may be attained after one year's residence, or the doctor's degree after a residence of two or three years. Exact prescriptions for advanced degrees are made on the basis of the record of the student at this University as well as at his undergraduate college; they are determined for students as individuals, not as graduates of an approved college, and they may vary in accordance with the preparation of the student in the field in which he proposes to do advanced work.

ADMISSION TO CANDIDACY FOR A HIGHER DEGREE

Not earlier than the last week of his first quarter of residence, a member of the Graduate School may apply for admission to candidacy for a higher degree. This application must be accompanied by a transcript of his undergraduate record in the departments in which he proposes to do his major and minor work, and in allied departments. There must also be a certificate from the heads of the major and minor departments in which the candidate is working at the University of North Carolina as to the candidate's fitness to carry on such advanced work as may be required for the degree. In case a student lacks certain elementary courses in either the major or the minor department, such courses will be indicated on the departmental certificate, and will become prerequisite courses without graduate credit.

It should be noted that this distinction between admission to the Graduate School and admission to candidacy for a degree does not necessarily involve any extension of the time required for the degree. Properly qualified students will register at once, with the approval of the departments interested, for such advanced courses as they wish to take, and all advanced courses completed according to the rules for graduate work will be credited towards the degree.

EXPENSES

See page 61.

UNIVERSITY TEACHING FELLOWSHIPS

Twenty-four Teaching Fellowships, each with a stipend of $500, are available to graduate students. These Fellowships carry free tuition, and are payable in nine monthly installments, beginning October 15th of the year for which they are awarded. Holders of these Fellowships are expected to perform certain limited services as teachers or laboratory assistants in the department to which they are assigned. This department must be the major department of graduate study, and each holder of a Fellowship will be required to pursue advanced courses in the department during his term as Fellow. Unless permission is given by special vote of the Administrative Board, no Fellow is permitted, during the term of his incumbency, to do other work for pay or to hold any other position to which a stipend is attached.

Fellowships are awarded only to men who present satisfactory records as students and who give promise of being able to carry on advanced work with distinction. Teaching experience is desirable, but is not required. The time required for the Master's degree may be extended in the case of men who hold Fellowships; ordinarily such men will not find it possible to register for more than two-thirds of the program ordinarily carried by graduate students.

Correspondence in regard to the Teaching Fellowships may be addressed to the Dean or to the head of the department in which the candidate proposes to do his major work. A special form of application, to be secured from the Dean's office, must be filed on or before April 1st. Elections to Fellowships will be made by the Administrative Board of the Graduate School, on nomination by the department to which the Fellowship is to be assigned.

GENERAL REGULATIONS

The unit of work is the course, by which is meant, as a rule, a class meeting five times a week. Half courses are also offered. In some courses open only to graduate students, such as the seminars and other research courses, the formal class exercises are modified. But all such work is credited in terms of courses and half courses.

Students are ordinarily expected to register for three courses. But two half courses may be substituted for a full course. Not more than three courses, or fifteen hours of class attendance, will

be permitted. Students of more than one year's standing, candidates for the doctor's degree, are permitted greater latitude with reference to courses for which formal registration is required. Such considerations as the amount of time devoted to research, to work on the doctoral dissertation, and the like, weigh in the estimate of what constitutes full work. But in all such cases detailed reports by the Department are required before residence credit is given.

Graduate students who desire credit for attendance at the Summer Session must register at the office of the Dean. The rules respecting admission to candidacy for higher degrees, for selection and approval of courses, and for the higher degrees, are the same in their application to Summer Session students as in the case of students registered for the regular sessions.

Only work announced as open for graduate credit in this Catalogue or in the Bulletin of the Summer Session may be counted toward the higher degree.

Work done *in absentia* will not be counted for graduate credit, except that in certain cases approved by the Department and by the Administrative Board, part of the work on the thesis for a higher degree may be done elsewhere, and except, further, that part of the work required for the degree of Doctor of Philosophy, may, on the recommendation of the major department and with the approval of the Administrative Board, be done at another University. But all such work, even when credited, is subject to examination at the finals required for the degree.

Graduate students are subject to the same rules regarding attendance upon classes, faithfulness to assigned tasks, examinations, and credit as students in other departments of the University. But graduate work pre-supposes a greater amount of time for research in the library or the laboratory, and the student, being more mature, is thrown more upon his own responsibility. For these reasons excessive registration is not permitted. The whole idea of graduate work is comprised in a more intense specialization and, therefore, more complete investigation than is necessary or wise in undergraduate instruction.

Each graduate student works under the direction of a special committee which consists usually of the head of the major department, or of some member of the staff of that department under whom the candidate is doing special work, who serves as chairman, and the other instructors with whom the candidate is registered.

No work falling below the standard represented by the grade of "C" is counted for graduate credit. At least half the work credited for any one year of residence must be of grade "B," or better. If, in the judgment of the Administrative Board, the quality of the work done by any student falls below the standard expected of graduate students, the registration of such a student will be cancelled.

THE GRADUATE DEGREES

The degrees under the supervision of the Graduate Faculty are Master of Arts (A.M.), Master of Science (S.M.), and Doctor of Philosophy (Ph.D.). For a complete statement of the requirements for these degrees reference must be made to the special Catalogue of the Graduate School, published in February of each year.

THE DEGREE OF MASTER OF ARTS

For the degree of Master of Arts the general prerequisite is the completion of a course leading to the degree of Bachelor of Arts in a college or university of standard grade. This course should have included special study in the department in which the graduate degree is sought sufficient in extent to constitute a proper preparation for advanced work. If the undergraduate preparation has been insufficient certain preliminary courses may be required before the student is admitted to candidacy for the degree.

Nine full courses of advanced character are usually required for the Master's degree. To complete these courses as least one full year's residence is required. No course will be counted for the degree unless it appears in the Graduate Bulletin, catalogue number, or is approved by the Administrative Board. Of the nine courses offered, six must be from one department recognized as the major, but with the approval of the special advisory committee and of the Administrative Board closely allied work in another department may be accepted as part of the major. More than six courses in one department may not be counted except under special conditions approved by the Administrative Board.

The remaining three courses, constituting the minor, are to be chosen from a department different from the major. But the relation of the minor to the major must be such as to constitute a clearly unified program.

Ordinarily a reading knowledge of at least one modern foreign language is expected of candidates for the degree.

Besides the completion of advanced courses that constitute a unified plan of study, the fitness of the student for the degree is tested in two ways: by a thesis and by oral and written final examinations. The thesis tests the candidate's knowledge of the method of investigation and his ability to make use of the knowledge he has acquired. The examinations test his knowledge of his special field by directing attention to the field as a whole, as contrasted with the course, which deals only with a limited portion of the field.

The subject chosen for the thesis should be approved by the advisory committee and reported to the Administrative Board by the end of the first quarter of residence. No change in subject, or deferring of the time of approval, will be permitted unless at least two quarters of residence intervene between the approval of the subject and the conferring of the degree, except that, with the permission of the Administrative Board, the thesis may be completed by a student not in residence who has satisfied the requirements as to courses.

For details concerning the character of the thesis, the form in which it is to be presented, and concerning the examinations for the degree, the student is referred to the catalogue number of the Graduate Bulletin.

THE DEGREE OF MASTER OF SCIENCE

The subjects of major study may be Chemistry, Electrical Engineering, Civil Engineering, or Geology, and the prerequisite courses are the courses leading to the degrees: S.B. in Chemistry, S.B. in Electrical Engineering, S.B. in Civil Engineering, and S.B. in Geology respectively. Before becoming a candidate for a Master's degree the student must complete the courses leading to the bachelor's degree as outlined in the general catalogue.

Courses Leading to the Degree of Master of Science

I. MASTER OF SCIENCE IN CHEMISTRY

Select one group	Chemistry 127-128-129
	Chemistry 147-148-149
	Chemistry 177-178-179
	Chemistry 197-198-199
Select two groups	Chemistry 114-115-116
	Chemistry 124-125-126
	Chemistry 144-145-146
	Chemistry 174-175-176
	Chemistry 194-195-196

Three approved courses from one of the following departments: Electrical Engineering, Geology, Mathematics, Physics.

II. MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

Electrical Engineering 100-101-102 and 110-111-112.

Three approved courses from one of the following departments: Civil Engineering, Chemistry, Geology, Physics.

III. MASTER OF SCIENCE IN CIVIL ENGINEERING

Engineering 100a-100b-100c, 103a-103b-103c, 106a-106b-106c, 107a-107b-107c. One of these groups must be selected as a major.

Approved courses in the following departments; the arrangement and number of courses to be decided upon after conference with the Department of Civil Engineering:

Mechanical and Electrical Engineering, Chemistry, Geology, Mathematics, Physics.

IV. MASTER OF SCIENCE IN GEOLOGY

Geology 104-105-106 and 107-108-109.

Three approved courses in one of the following departments: Chemistry, Civil Engineering, Botany and Zoology.

Other Requirements

The requirements regarding modern language, thesis, examinations, committee, residence, and conferring of degrees are the same as for Masters of Arts.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is conferred only upon those who have completed, with high distinction, a period of extended study and investigation in a single field of learning during which they have gained control of the materials in the chosen field, have mastered the method of advanced study, and have illustrated this method through a dissertation, the result of independent research, which adds to the sum of human knowledge or presents results that have enduring value. Neither the accumulation of facts, however great in amount, nor the completion of advanced courses, however numerous, can be substituted for this power of independent investigation and the proofs of its possession. While it is true that a well prepared student of good ability may secure the degree upon the completion of three years of study, it should be understood that this time requirement is wholly secondary to other considerations that will be explained in the following paragraphs.

Admission and Registration

The rules for admission to courses leading to the degree of Doctor of Philosophy and for registration for courses in the first

year of residence are the same as those stated above in the section on the degree of Master of Arts. The work for the first year is substantially the same as that provided for candidates for the Master's degree, and while it is not necessary to take the Master's degree it is usually advisable. The provisions for choice of major and minor subjects, and for the direction of the student's work by a special committee, are as already set forth under the requirements for the Master's degree.

Second and Third Years

Not later than the beginning of the second year's work a tentative program of study must be approved by the special committee and by the Administrative Board. During the second year this program may consist chiefly of advanced courses in both major and minor fields. The minor should be completed during this year. A reading knowledge of French and German, to be certified by the respective departments, is essential to the work of the second year, and in the case of certain subjects other language requirements may be imposed by the special committee. During the second year, also, work on the dissertation should be begun.

Not earlier than the end of the second year, and at least one academic year prior to the Commencement at which the degree is expected, a preliminary oral examination will be given by the special advisory committee in charge of the candidate's work plus all members of the staff of the major and minor departments. This examination shall cover all the work of the two years. As a rule, no student will be admitted to candidacy for the doctorate until this examination has been passed.

The work of the third year requires no special registration in courses, though the candidate will find it advisable to attend certain courses as a lecture student. The major portion of the time is to be spent upon the dissertation or upon special laboratory or research work, and in preparation for the final examinations. A portion of the second and third years may be spent in residence at another university. In some departments such residence is required, the university being chosen according to the student's need for special courses in the field of his dissertation, or for the library or laboratory facilities it offers. Instead of work in another university, work in a large library or in some special laboratory may be substituted at the discretion of the student and his advisory committee.

The Dissertation

The subject chosen for the dissertation must be approved by the committee and by the Administrative Board not later than the time of the preliminary examinations. But work upon it, such as preliminary bibliography and the collection of material, should be begun earlier than this. The dissertation is the fruit of thorough investigation of a definite problem and finds its value in the scholarly and workmanlike manner in which it is presented, in its contribution to learning, and in the mental power which it displays.

The dissertation must be presented, in three typewritten copies, at least six weeks before the Commencement at which the candidate expects his degree. It must comply with the rules for form of theses prescribed by the Administrative Board, and abstracts must be supplied as under the rules for Master's theses. A thesis committee, appointed by the Dean, shall examine the dissertation, and no dissertation shall be accepted unless it secures the unanimous vote of the committee.

Publication of the dissertation, except by abstract in the Graduate Bulletin, is not required. But the various journals published by the University afford opportunity for such publication, in whole or part.

The Examinations

Reference has already been made to the preliminary examination required for admission to candidacy for the doctorate.

At least four weeks before the end of the period of study a written examination in the major subject must be passed by the candidate. This examination, which is conducted under the direction of the major department, may be limited to the courses taken by the candidate, but as a rule it is based upon the entire field of knowledge represented by the major.

The final oral examination must take place at least two weeks before the Commencement at which the student is a candidate for the degree. The committee to have charge of this examination is appointed by the Dean, and includes the head of the major department or his representative as chairman, with other members of the major and minor departments as assistants. The date and place of the examination shall be publicly announced, and the examination shall be open to any member of the Graduate Faculty.

FACILITIES FOR RESEARCH

Statements concerning the libraries of the University and concerning laboratory facilities will be found elsewhere in the Catalogue. The University publishes three journals of research, all of them firmly established and widely known. *The Elisha Mitchell Journal,* now in its fortieth year, has published a very large number of scientific papers, particularly in chemistry, botany, and zoology. The *James Sprunt Historical Monographs,* of which seventeen volumes have appeared, are devoted to the results of historical studies, chiefly relating to North Carolina. *Studies in Philology,* a quarterly journal, now in its twenty-first volume, originally was devoted to the publication of monographs by members of the language departments of the University, but is now conducted on the same lines as *Modern Philology, Modern Language Notes, The Classical Journal,* and other journals of research, printing contributions by the foremost American scholars. *The Journal of Social Forces* and the *North Carolina Law Review* have recently been established as journals of research in the two fields represented by their titles.

Several departments maintain their own clubs for the purpose of stimulating interest in research. Of wider appeal are such organizations as the Elisha Mitchell Scientific Society, founded in 1883, and the Philological Club, founded and maintained by the language departments of the University. To these organizations graduate students are admitted. There is also a Graduate Club, composed of students and members of the Graduate Faculty, which holds meetings for the purpose of stimulating interest in the method of research in general and in the relation of fields of investigation to each other.

A Bulletin of *Research in Progress* is issued annually by the Graduate School, and contains abstracts of publications by members of the faculty, abstracts of theses presented for advanced degrees, and reports of investigations under way in the various departments.

FURTHER INFORMATION

Inquiries as to advanced work in special departments may be addressed to the heads of departments in which the student is interested. Inquiries relating to graduate work in general, admission, credits, requirements for degrees, requests for bulletins, and the like, should be addressed to the Dean of the Graduate School.

THE SUMMER SCHOOL, 1923

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STURGIS ELLENO LEAVITT, Ph.D., *Professor of Spanish.* Spanish.

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ERNST CHRISTIAN METZENTHIN, Ph.D., *Assistant Professor of German.* German.

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THOMAS JAMES WILSON, JR., Ph.D., *Associate Professor of Latin.* Latin.

ARTHUR SIMEON WINSOR, A.M., *Assistant Professor of Mathematics.* Mathematics.

THOMAS EWELL WRIGHT, A.B., *Instructor in French.* Spanish.

College Courses

The letter s, meaning summer, is prefixed to the numbers of courses to distinguish them from the numbers employed in the annual catalogue to designate the courses of the regular college year.

The letter N indicates that the course counts for "normal credit," i.e., credit towards a state certificate. The letter C indicates that a course is of college grade and may be counted towards the bachelor's degree; the abbreviation G indicates that a course so marked is of graduate grade and may be counted toward the master's degree. One Summer School hour is counted as one-half a course for a term (quarter) of the regular session.

Accounting

s 1. PRINCIPLES OF ACCOUNTING. *Ten hours a week, first term.* Credit, 1 course. C. Mr. Thompson.

s 2. PRINCIPLES OF ACCOUNTING. *Ten hours a week, first or second term.* Credit, 1 course. C. Mr. Thompson.

Chemistry

s 1. GENERAL DESCRIPTIVE CHEMISTRY. *Fourteen hours a week, first term.* Credit, 1 course. C. Mr. Bell and Mr. Smith.

s 2. GENERAL DESCRIPTIVE CHEMISTRY. *Fourteen hours a week, first or second term.* Credit, 1 course. C. Mr. Bell and Mr. Crockford.

s 13. CHEMISTRY OF FOODS. *Ten hours a week, first term.* Credit, 1 course. C. Mr. Vilbrandt.

s 31. QUALITATIVE ANALYSIS. *Four hours daily, first term.* Credit, 1 course. C. Mr. Vilbrandt.

s 35. ANALYTICAL CHEMISTRY. *Four hours daily, first term.* Credit, 1 course. C. Mr. Vilbrandt.

s 41. LABORATORY COURSE. *Second term.* Credit, 1 course. C. Mr. Crockford.

s 61. ORGANIC CHEMISTRY. *Fourteen hours a week, first term.* Credit, 1 course. C. Mr. Taylor.

s 62. ORGANIC CHEMISTRY. *Fourteen hours a week, first or second term.* Credit, 1 course. C. Mr. Taylor.

s 53. ORGANIC CHEMISTRY. *First term.* Mr. Vilbrandt.

Commerce

s 1. MARKETING. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Fernald.

s 3. SALESMANSHIP. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Fernald.

s 5. ADVERTISING. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Fernald.

Economics

s 1. GENERAL ECONOMICS. *Five hours a week, first term.* Credit, ½ course. C. Mr. Carroll.

s 2. ECONOMIC PROBLEMS. *Five hours a week, first and second terms.* Credit, 1 course. C. Mr. Carroll and Mr. Thompson.

s 3. MONEY. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Murchison.

s 4. BANKING. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Murchison.

s 11. BUSINESS CYCLES. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Murchison.

s 16. THEORIES OF ECONOMIC REFORM. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Carroll.

Education

s 2a. PRINCIPLES OF EDUCATION. *Five hours a week, first or second term.* Credit, ½ course. C. Mr. Noble, Jr., and Mr. Latshaw.

s 2b. PRINCIPLES OF EDUCATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Latshaw.

s 3. METHODS IN EDUCATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Noble, Sr.

s 13. CONSTRUCTIVE SUPERVISION. *Ten hours a week, first term.* Credit, 1 course. C. or G. Mr. Proctor.

s 15. CLASS MANAGEMENT. *Five hours a week, first term.* Credit, ½ course. C. Mr. Pusey.

s 16. SCHOOL MANAGEMENT. *Five hours a week, first or second term.* Credit, ½ course. C. or G. Mr. Pusey.

s 17. HISTORY OF EDUCATION IN NORTH CAROLINA. *Five hours a week, first term.* Credit, ½ course. C. Mr. Noble, Sr.

s 18. HISTORY OF EDUCATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Baker.

s 25. THE JUNIOR HIGH SCHOOL. *Five hours a week, first term.* Credit, ½ course. C. Mr. Pusey.

s 26b. PUBLIC SCHOOL EDUCATION IN THE SOUTH. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Knight and Mr. Howard.

s 31b. RURAL SCHOOL ORGANIZATION AND ADMINISTRATION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Knight and Mr. Howard.

s 51a. PRINCIPLES OF SECONDARY EDUCATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Hood.

s 51b. PRINCIPLES OF SECONDARY EDUCATION. *Five hours a week, second term.* Credit, ½ course. C. Mr. Mosher.

s 52a. GENERAL METHODS IN SECONDARY EDUCATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Hood.

s 52b. GENERAL METHODS IN SECONDARY EDUCATION. *Five hours a week, second term.* Credit, ½ course. C. Mr. Mosher.

s 54. THE PSYCHOLOGY OF HIGH SCHOOL SUBJECTS. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Hood.

s 56a. MEASUREMENTS IN SECONDARY EDUCATION. *Five hours a week, first or second term.* Credit, ½ course. C. Mr. Trabue and Mr. Latshaw.

s 61a. EDUCATIONAL ADMINISTRATION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Trabue.

s 61b. EDUCATIONAL ADMINISTRATION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Trabue and Mr. Proctor.

s 62a. MEASUREMENTS IN ELEMENTARY EDUCATION. *Five hours a week, first or second term.* Credit, ½ course. C. or G. Mr. Trabue and Mr. Noble, Jr.

s 62b. MEASUREMENTS IN ELEMENTARY EDUCATION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Trabue and Mr. Noble, Jr.

s 65. SCHOOL FINANCE. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Proctor.

s101a. PROBLEMS IN SECONDARY EDUCATION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Walker.

s101b. PROBLEMS IN SECONDARY EDUCATION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Walker and Mr. Mosher.

s108a. PROBLEMS IN EDUCATIONAL ADMINISTRATION. *Four hours a week, first term.* Credit, ½ course. C. or G. Mr. Trabue.

s108b. PROBLEMS IN EDUCATIONAL ADMINISTRATION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Trabue.

s 109. EDUCATIONAL CLASSICS. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Baker.

s126b. STUDIES IN SOUTHERN EDUCATION. *First term.* Credit, ½ course. C. or G. Mr. Knight.

English

s 1. FRESHMAN ENGLISH. *Five hours a week, first and second terms.* Credit, 1 course. C. Mr. Howell and Mr. MacMillan.

s 3a. ENGLISH LITERATURE. *Five hours a week, first term.* Credit, ½ course. C. Mr. Mock and Mr. Howell.

s 13a. DRAMATIC INTERPRETATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. McKie.

s 17a. PUBLIC DISCUSSION AND DEBATE. *Five hours a week, first term.* Credit, ½ course. C. Mr. McKie.

s 31a. DRAMATIC COMPOSITION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Koch.

s 31b. DRAMATIC COMPOSITION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. MacMillan.

s 37. SHAKESPEARE: THE COMEDIES. *Five hours a week, first term.* Credit, ½ course. C. Mr. McKie.

s 43a. THE ELIZABETHAN DRAMA. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Greenlaw.

s 43b. THE ELIZABETHAN DRAMA. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Graves.

s 51b. ROMANTICISM. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. White.

s 55b. VICTORIAN LITERATURE. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. White.

s 60b. AMERICAN LITERATURE. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Hibbard.

s 71a. MODERN DRAMA. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Koch.

s 81a. OLD ENGLISH. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Royster.

s 82. PRESENT-DAY ENGLISH. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Royster.

s 91a. THE TEACHING OF ENGLISH. *First term.* Credit, ½ course. C. or G. Mr. Greenlaw.

s 91b. THE TEACHING OF ENGLISH. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Hibbard.

s 141. RESEARCH IN A SPECIAL FIELD. *First term.* Credit, ½ course. G. Mr. Greenlaw.

s 141. RESEARCH IN A SPECIAL FIELD. *Second term.* Credit, ½ course. G. Mr. Graves.

French

s 1. ELEMENTARY COURSE. *Ten hours a week, first term.* Credit, 1 course. N. Mr. Huse.

s 2. ELEMENTARY COURSE. *Ten hours a week, first or second term.* Credit, 1 course. N. Mr. Roberts and Mr. Haronian.

s 3a. A CONTINUATION OF FRENCH 1-2. *Five hours a week, first term.* Credit, ½ course. C. Mr. Learned.

s 3b. CONTINUATION OF FRENCH 1-2. *Five hours a week, second term.* Credit, ½ course. C. Mr. Learned.

s 4a. CONTINUATION OF FRENCH s3. *Five hours a week, first term.* Credit, ½ course. C. Mr. Learned.

s 4b. CONTINUATION OF FRENCH 3. *Five hours a week, second term.* Credit, ½ course. C. Mr. Haronian.

s 5a. ADVANCED COURSE. *Five hours a week, first term.* Credit, ½ course. C. Mr. Huse and Mr. Learned.

s 5b. ADVANCED COURSE. *Five hours a week, second term.* Credit, ½ course. C. Mr. Learned.

s 8. TEACHER'S COURSE. *Five hours a week, second term.* Credit, ½ course. C. Mr. Dey.

s 19a. THE NOVEL IN FRANCE IN THE NINETEENTH CENTURY. *Five hours a week, second term.* Credit, ½ course. C. Mr. Dey.

s121a. OLD FRENCH. *Five hours a week, first term.* Credit, ½ course. G. Mr. Learned.

s121b. OLD FRENCH. *Five hours a week, second term.* Credit, ½ course. G. Mr. Learned.

Geography

s 11. THE TEACHING OF GEOGRAPHY IN THE HIGH SCHOOL. *Five hours a week, first term.* Credit, ½ course. C. Mr. Cobb.

s 21. COMMERCIAL AND INDUSTRIAL GEOGRAPHY. *Five hours and laboratory a week, second term.* Credit, 1 course. C.

s 22. COMMERCIAL AND INDUSTRIAL GEOGRAPHY. *Five hours and laboratory a week, first term.* Credit, 1 course. C. Mr. Collier Cobb.

Geology

s 13. INTRODUCTORY GEOLOGY. *Five hours and laboratory a week, first term.* Credit, 1 course. C. Mr. Prouty.

s 14. HISTORICAL GEOLOGY. *Five hours and laboratory a week, first term.* Credit, 1 course. C. Mr. Prouty.

s 16. ADVANCED GEOLOGICAL FIELD WORK. *First term.* Credit, 1 course. C. or G. Mr. Prouty.

s 23. ORIGIN AND NATURE OF SOILS. *Ten hours a week, second term.* Credit, 1 course. C. Wm. B. Cobb.

s 24. ORIGIN AND NATURE OF SOILS, ADVANCED. *Second term.* Wm. B. Cobb.

s 107. SPECIAL RESEARCH. *First term.* Mr. Prouty.

German

s 1. ELEMENTARY COURSE. *Ten hours a week, first term.* Credit, 1 course. E. or N. Mr. Metzenthin.

s 1. ELEMENTARY COURSE. *Ten hours a week, second term.* Credit, 1 course. E. or N. Mr. Metzenthin.

s 4a. ADVANCED COURSE. *Ten hours a week, first term.* Credit, 1 course. C. Mr. Bosshard.

s 21. GERMAN LITERATURE. *Ten hours a week, second term.* Credit, 1 course. C. or G. Mr. Toy.

Greek

s 3. GREEK LITERATURE IN ENGLISH TRANSLATION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Bernard.

History and Government

s 1a. FOUNDATIONS OF MODERN HISTORY. *Five hours a week, first term.* Credit, ½ course. C. Mr. Connor.

s 1b. FOUNDATIONS OF MODERN HISTORY. *Five hours a week, second term.* Credit, ½ course. C. Mr. Caldwell.

s 2a. FOUNDATIONS OF MODERN HISTORY. *Five hours a week, first term.* Credit, ½ course. C. Mr. Pierson.

s 2b. FOUNDATIONS OF MODERN HISTORY. *Five hours a week, second term.* Credit, ½ course. C. Mr. Caldwell.

s 17. HISTORY OF NORTH CAROLINA. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Connor.

s 24. ENGLISH HISTORY. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Hamilton.

s 26. THE TEACHING OF HISTORY IN THE HIGH SCHOOL. *Five hours a week, second term.* Credit, ½ course. C. Mr. Caldwell.

s 27. THE AMERICAN REVOLUTION AND THE CRITICAL PERIOD, 1763-1787. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Connor.

s 28b. HISTORY OF THE UNITED STATES, 1829-1860. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Pierson.

s 29a. SECESSION AND CIVIL WAR. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Hamilton.

s 29b. RECONSTRUCTION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Hamilton.

s 30b. HISTORY OF THE UNITED STATES, 1898-1920. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Pierson.

s 109. SEMINAR COURSE. Mr. Hamilton.

s 1b. GOVERNMENT. *Five hours a week, first term.* Credit, ½ course. C. Mr. Hamilton.

Latin

s 1. CICERO'S ESSAYS. *Five hours a week, first and second terms.* Credit, 1 course. C. Mr. Bernard and Mr. Wilson.

s 4. VERGIL. *Five hours a week, first term.* Credit, ½ course. C. Mr. Howe.

s 11. THE TEACHING OF LATIN IN THE HIGH SCHOOL. *Five hours a week, first term.* Credit, ½ course. C. Mr. Howe.

s 17. CICERO. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Latshaw.

Library Science

s 1. THE USE OF BOOKS. *Five hours a week.* Credit, ½ course. C. or G. Mr. Wilson.

s 5. LIBRARY ORGANIZATION AND METHODS. *Five hours a week, first term.* Credit, 1 hr. N, or ½ course C. Mr. Wilson.

s 7. CLASSIFICATION AND CATALOGING. *Five hours a week, first term.* Credit, 1 hr. N, or ½ course C. Miss Thompson.

Mathematics

s 1. MATHEMATICAL ANALYSIS. *Ten hours a week, first term.* Credit, 1 course. C. Mr. Linker and Mr. Lasley.

s 1. (ALG.) COLLEGE ALGEBRA. *Ten hours a week, second term.* Credit, 1 course. C. Mr. Hobbs.

s 2. (TRIG.) PLANE TRIGONOMETRY. *Ten hours a week, first term.* Credit, 1 course. C. Mr. Winsor.

s 2. (TRIG.) PLANE TRIGONOMETRY. *Ten hours a week, second term.* Credit, 1 course. C. Mr. Linker.

s 3. ANALYTIC GEOMETRY. *Five hours a week, first and second terms.* Credit, 1 course. C. Mr. Linker and Mr. Hobbs.

s 4. DIFFERENTIAL CALCULUS. *Five hours a week, first and second terms.* Credit, 1 course. C. Mr. Winsor and Mr. Hobbs.

s 50. THE HISTORY OF MATHEMATICS. *Five hours a week, first term.* Credit, 1 course. C. Mr. Rankin.

s 51. THE TEACHING OF MATHEMATICS IN THE HIGH SCHOOL. *Five hours a week, first term.* Credit, ½ course. C. Mr. Rankin.

s 52. ELEMENTARY PROJECTIVE GEOMETRY. *Five hours a week, first term.* Credit, ½ course. C. Mr. Lasley.

N.O. SOLID GEOMETRY. *First term.* Mr. Linker.

Music

s 1. GENERAL PROBLEMS OF MUSIC SUPERVISION. *Five hours a week, first term.* Credit, ½ course. C. Mr. Weaver.

s 2. PUBLIC SCHOOL MUSIC METHODS—PRIMARY GRADES. *Five hours a week, first term.* Credit, ½ course. C. Miss Pratt, Miss Lampert, and Miss Hayes.

s 2. PUBLIC SCHOOL MUSIC METHODS—PRIMARY GRADES. *Five hours a week, second term.* Credit, ½ course. C. Miss Clement.

s 3. PUBLIC SCHOOL MUSIC METHODS—GRAMMAR GRADES. *Five hours a week, first term.* Credit, ½ course. C. Miss Pratt.

s 3. PUBLIC SCHOOL MUSIC METHODS. *Five hours a week, second term.* Credit, ½ course. C. Miss Clement.

s 4. HIGH SCHOOL MUSIC. *Five hours a week, first term.* Credit, ½ course. C. Miss Lampert.

s 5. SIGHT-SINGING AND EAR-TRAINING, ELEMENTARY. *Five hours a week, first term.* Credit, ½ course. C. Section I, Miss Pratt; Section II, Miss Hayes; Section III, Mr. Sheldon.

s 5. SIGHT-SINGING AND EAR-TRAINING, ELEMENTARY. *Five hours a week, second term.* Credit, ½ course. C. Miss Clement.

s 6. SIGHT-SINGING AND EAR-TRAINING, ADVANCED. *Five hours a week, first term.* Credit, ½ course. C. Miss Lampert.

s 7. APPRECIATION OF MUSIC. *Five hours a week, first term.* Credit, ½ course. C. Mr. Sheldon.

s 8. HISTORY OF MUSIC. *Five hours a week, first term.* Credit, ½ course. C. Mr. Sheldon.

s 10. VOICE LESSONS. Mr. Hamilton.

s 11. PIANO LESSONS. Miss Amis.

Physics

s 1. ADVANCED PHYSICS. *Twelve hours a week, first term.* Credit, 1 course. C. Mr. Patterson and Mr. Daugherty.

s 2. ADVANCED COURSE. *Fourteen hours a week, second term.* Credit, 1 course. C. Mr. Stuhlman and Mr. Daugherty.

s 13. TEACHERS' COURSE. *Ten hours a week, second term.* Credit, 1 course. C. Mr. Patterson and Mr. Daugherty.

Psychology

s 1. GENERAL PSYCHOLOGY: FIRST HALF. *Ten hours a week, first term.* Credit, 1 course. C. Mr. Dashiell.

s 2. GENERAL PSYCHOLOGY: SECOND HALF. *Ten hours a week, second term.* Credit, 1 course. C. Mr. Dashiell.

s 20a. EDUCATIONAL PSYCHOLOGY: INTRODUCTORY. *Five hours a* week, first term. Credit, ½ course. C. or G. Mr. Cason.

s 20b. EDUCATIONAL PSYCHOLOGY: INTRODUCTORY. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Cason.

s 23a. EDUCATIONAL PSYCHOLOGY: ADVANCED. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Cason.

s 23b. EDUCATIONAL PSYCHOLOGY: ADVANCED. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Cason.

s 26a. CHILD PSYCHOLOGY. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Cason.

s 26b. CHILD PSYCHOLOGY. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Cason.

s 46. ABNORMAL PSYCHOLOGY: PSYCHONEUROSES AND PSYCHOSES. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Crane.

s 47. MENTAL EXAMINATION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Crane.

Rural Economics

s 11. RURAL SOCIAL PROBLEMS. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Hobbs.

s 12. RURAL ECONOMICS. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Hobbs.

s 13. LABORATORY COURSE IN RURAL SOCIAL PROBLEMS. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Hobbs.

s 20. NORTH CAROLINA: ECONOMIC AND SOCIAL. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Hobbs.

Sociology

s 2a. PRINCIPLES OF SOCIOLOGY. *Five hours a week, first or second term.* Credit, ½ course. C. Mr. Meyer.

s 2b. PRINCIPLES OF SOCIOLOGY. *Five hours a week, second term.* Credit, ½ course. C. Mr. Meyer.

s 4a. EDUCATIONAL SOCIOLOGY. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Odum.

s 4b. EDUCATIONAL SOCIOLOGY. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Odum.

s 8a. PRINCIPLES OF COMMUNITY ORGANIZATION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Hart.

s 8b. PRINCIPLES OF COMMUNITY ORGANIZATION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Odum.

s 10a. THE STUDY OF SOCIAL PROBLEMS. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Odum.

s 10b. THE STUDY OF SOCIAL PROBLEMS. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Odum.

s 14a. SOCIAL CASE WORK. Miss Wherry.

s 21a. PROGRAM OF RECREATION WITH "COMMUNITY RECREATION." Miss Wherry.

s 24a. THE PHILOSOPHY OF PLAY AND RECREATION. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Meyer.

s 24b. THE PHILOSOPHY OF PLAY AND RECREATION. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Meyer.

s121a. THE SOCIAL PRINCIPLES OF EDUCATION. *First term.* Mr. Hart.

Spanish

s 1a. ELEMENTARY COURSE. *Five hours a week, first term.* Credit, ½ course. E. or N. Mr. Wright.

s 1b. ELEMENTARY COURSE. *Five hours a week, second term.* Credit, ½ course. E. or N. Mr. Wright.

s 2a. ELEMENTARY COURSE. Continuation of Spanish s1b. *Five hours a week, first term.* Credit, ½ course. E. or N. Mr. Shapiro.

s 2b. ELEMENTARY COURSE. *Five hours a week, second term.* Credit, ½ course. E. or N. Mr. Shapiro.

s 4a. CONTINUATION OF SPANISH 3. *Five hours a week, first term.* Credit, ½ course. C. Mr. Roberts.

s 4b. CONTINUATION OF SPANISH 3. *Five hours a week, second term.* Credit, ½ course. C. Mr. Shapiro.

s 5a. MASTERPIECES OF SPANISH LITERATURE. *Five hours a week, first term.* Credit, ½ course. C. Mr. Leavitt.

s 5b. MASTERPIECES OF SPANISH LITERATURE. *Five hours a week, second term.* Credit, ½ course. C. Mr. Leavitt.

s 8a. TEACHERS' COURSE. *Five hours a week, first term.* Credit, ½ course. C. Mr. Shapiro.

s 8b. TEACHERS' COURSE. *Five hours a week, second term.* Credit, ½ course. C. Mr. Shapiro.

s20a. THE NOVEL IN SPAIN IN THE NINETEENTH CENTURY. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Leavitt.

s 20b. CONTEMPORARY SPANISH LITERATURE. *Five hours a week, second term.* Credit, ½ course. C. or G. Mr. Leavitt.

s120a. EARLY SPANISH. *Five hours a week, first term.* Credit, ½ course. C. or G. Mr. Shapiro.

NORMAL COURSES OF INSTRUCTION

Education

n 1. GENERAL METHODS IN PRIMARY SCHOOL SUBJECTS. *Five hours a week, first term.* Credit, each section 1 hour. N. Miss Edmondson and Miss Beust.

n 1. GENERAL METHODS IN PRIMARY SCHOOL SUBJECTS. *Five hours a week, second term.* Credit, each section 1 hour. N. Miss Allen.

n 2. PRIMARY READING. *Five hours a week, first term.* Credit, 1 hour. N. Miss Orr.

n 2. PRIMARY READING. *Five hours a week, first term.* Credit, 1 hour. N. Miss Taylor.

n 3. THE TECHNIQUE OF TEACHING. *First term.* Credit, 1 hour. N. Miss Orr.

n 5. CHILD STUDY. *Five hours a week, second term.* Credit, 1 hour. N. Miss Edmondson.

n 5. CHILD STUDY. *Five hours a week, second term.* Credit, 1 hour. N. Mr. Proctor.

n 6. STORY TELLING. *Five hours a week, first term.* Credit, each section 1 hour. N. Miss Masseling.

n 6. STORY TELLING. *Five hours a week, second term.* Credit, 1 hour. N. Miss Masseling.

n 7. PHYSICAL EDUCATION. *Five hours a week, second term.* Credit, 1 hour. N. Miss Masseling.

n 8. CLASS MANAGEMENT. *Five hours a week, first term.* Credit, 1 hour. N. Mr. Griffin.

n 8. CLASS MANAGEMENT. *Five hours a week, second term.* Credit, 1 hour. N. Mr. Griffin.

n 9. TESTS AND MEASUREMENTS FOR ELEMENTARY GRADES. *Five hours a week, first term.* Credit, 1 hour. N. Mr. Noble, Jr.

English

n 1. LANGUAGE IN THE GRADES. *Five hours a week, first term.* Credit, 1 hour. N. Miss Sheehan.

n 1. LANGUAGE IN THE GRAMMAR GRADES. *Five hours a week, second term.* Credit, 1 hour. N. Miss Ketchen.

n 2. LITERATURE IN THE GRADES. *Five hours a week, first term.* Credit, 1 hour. N. Miss Sheehan.

n 3. METHODS OF TEACHING ENGLISH IN THE GRADES. *Five hours a week, first term.* Credit, 1 hour. N. Miss Sheehan.

n 3. METHODS OF TEACHING ENGLISH IN THE GRADES. *Five hours a week, second term.* Credit, 1 hour. N. Miss Ketchen.

n 4. LANGUAGE IN THE GRADES. *Five hours a week, second term.* Credit, 1 hour. N. Miss Allen.

Geography

n 1. ELEMENTARY GEOGRAPRY. *Five hours a week, first term.* Credit, 1 hour. N. Miss Carney.

n 1. ELEMENTARY GEOGRAPHY. *Five hours a week, second term.* Credit, 1 hour. N. Mr. Pusey.

n 2. THE TEACHING OF GEOGRAPHY. *Five hours a week, first term.* Credit, 1 hour. N. Mr. Noble, Sr.

History

n 1. A REVIEW COURSE IN HISTORY. *Five hours a week, first term.* Credit, 1 hour. N. Miss Carney.

n 1. A REVIEW COURSE IN HISTORY. *Five hours a week, second term.* Credit, 1 hour. N. Mr. Pusey.

n 2. THE TEACHING OF HISTORY IN THE GRADES. *Five hours a week, first term.* Credit, 1 hour. N. Miss Carney.

n 3. ELEMENTARY SOCIAL PROBLEMS. *Five hours a week, first term.* Credit, 1 hour. N. Miss Carney.

Mathematics

n 1. ARITHMETIC. *Five hours a week, first term.* Credit, 1 hour. N. Mr. Sheep.

n 1. ARITHMETIC. *Five hours a week, second term.* Credit, 1 hour. N. Mr. Sheep.

n 2. THE TEACHING OF ARITHMETIC. *Five hours a week, first term.* Credit, 1 hour. N. Mr. Sheep.

n 3. PRIMARY NUMBERS. *Five hours a week, second term.* Credit, 1 hour. N. Miss Taylor.

Physical Education

n 1. SWIMMING. *First term.* Credit, 1 hour. N. Mrs. Lawson.

n 3. BASKETBALL. *First term.* Credit, 1 hour. N. Mr. Lawson.

n 7. PHYSICAL EDUCATION. *First term.* Credit, 1 hour. N. Miss Masseling and Mr. Lawson.

School Arts

n 1. DRAWING FOR PRIMARY GRADES. *Five hours a week, first term.* Credit, 1 hour. N. Miss Deitz.

n 1. DRAWING FOR THE PRIMARY GRADES. *Five hours a week, second term.* Credit, 1 hour. N. Mrs. Sease.

n 2. DRAWING FOR GRAMMAR GRADES. *Five hours a week, first* term. Credit, 1 hour. N. Mrs. Sease.

n 2. DRAWING FOR GRAMMAR GRADES. *Five hours a week, second term.* Credit, 1 hour. N. Mrs. Sease.

n 4. INDUSTRIAL ARTS. *Five hours a week, first term.* Credit, 1 hour. N. Mrs. Sease.

n 4. INDUSTRIAL ARTS. *Five hours a week, first term.* Credit, 1 hour. N. Mrs. Sease.

Writing

n 1. FREE-ARM MOVEMENT. *Five hours a week, first term.* Credit, 1 hour. N. Miss Jones.

n 2. PALMER METHOD WRITING. *Five hours a week, first term.* Credit, 1 hour. N. Miss Poore.

n 3. PALMER METHOD WRITING (ADVANCED COURSE). *Five hours a week, first term.* Credit, 1 hour. N. Miss Poore.

THE UNIVERSITY EXTENSION DIVISION

OFFICERS

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

CHESTER DEFOREST SNELL, B.H., B.S., *Director.*

EDGAR RALPH RANKIN, A.M., *Associate Director.*

GEORGE BASKERVILLE ZEHMER, A.M., *Associate Director.*

LOUISE MANNING VENABLE, A.B., *Executive Secretary.*

IN CHARGE OF BUREAUS

EUGENE CUNNINGHAM BRANSON, A.M., Litt.D., *Rural Social Economics.*

MARY LOUISE COBB, A.B., *Correspondence and Class Instruction.*

WILLIAM CHAMBERS COKER, Ph.D., *Design and Improvement of School Grounds.*

GEORGE VERNON DENNY, S.B., *Lectures and Entertainments.*

FREDERICK HENRY KOCH, A.M., *Community Drama.*

WALTER JEFFRIES MATHERLY, A.M., *Commercial and Industrial Relations.*

HAROLD DIEDRICH MEYER, A.M., *Short Courses and Institutes.*

HOWARD WASHINGTON ODUM, Ph.D., *Municipal Information and Research.*

EDGAR RALPH RANKIN, A.M., *High School Debating and Athletics.*

NELLIE ROBERSON, A.B., *Public Discussion.*

JESSE FREDERICK STEINER, Ph.D., *Community Development.*

NATHAN WILSON WALKER, A.B., Ed.M., *Educational Service and Research.*

PAUL JOHN WEAVER, B.A., A.A.G.O., *Community Music.*

The University Extension Division offers assistance to the people of the State through the following Bureaus:

I. CORRESPONDENCE AND CLASS INSTRUCTION

CORRESPONDENCE STUDY has been designed to give everyone who cannot attend the University of North Carolina an opportunity to get some of the advantages for instruction and culture which may

be of help to him. To those who desire to study for degrees or teachers' certificates, or merely for cultural purposes, the correspondence study method offers an excellent opportunity.

Correspondence study is simply a method of learning through the study of text-books and answering in writing the questions asked in each lesson assignment. Each assignment contains: (a) full directions for study, including references to text-books by chapter and page; (b) suggestions and helps of the instructor; (c) questions to test the student's method of work and his understanding of the work done. When a student has registered for a course three assignments are sent him. He does the work outlined in the first assignment and sends his paper to the Extension Division and then begins work on the second assignment. Upon receipt of each completed assignment from the student the Extension Division sends him a new assignment. At the University each paper is corrected and graded by a member of the faculty and then returned to the student. While it is very desirable that the student send in work regularly, at least one assignment each week, he has the privilege of sending in the work as he is able to complete it.

Correspondence instruction is no longer an experiment but is an assured success. This fact is testified to by University instructors and by earnest and enthusiastic students. Educational institutions all over the country now consider correspondence courses a part of their regular work.

It is not the purpose of correspondence study to discourage study in residence. On the contrary, it is believed that many who thus become interested in continuing their education will be led to avail themselves of residence study. In residence the student comes into personal contact with teachers and a large body of students. The constant contact with scholarly and cultured people has always been looked upon as a prime factor in the rounded education of young people.

However, to quote the *University of Texas Bulletin:* " . . . correspondence study offers substantial advantages. In correspondence instruction the teaching is entirely individual; each student comes into individual relation with the instructor in a way impossible in the crowded class-room. He recites the whole of every lesson with a consequent advantage to himself that is obvious. Full opportunity is given to discuss all difficulties in writing, and this written discussion in itself affords valuable training. Further, a

correspondence student is not hampered by the usual time regulations; he may take up study at his convenience without awaiting the fixed date of a college term."

In offering these courses to *school teachers,* the University has no desire whatever to interfere with the regular work of the teachers but wishes simply to give them an opportunity to better their educational training during their spare hours.

LENGTH OF COURSES. Each correspondence course has been developed by a member of the faculty so that it parallels a course given in residence in the same subject and covers an equal amount of work for which equal credit is given. Although it may vary, a correspondence course which gives one-half course credit has about sixteen assignments, and for one course credit there are about twenty-seven assignments. Each assignments covers approximately two days of residence work. On such assignments as student is expected to put approximately six hours or else sufficient time to do the work in the best possible manner. Where there is a small number of assignments in a course, each assignment covers several days of residence work. The number of assignments in a course is really incidental, since the total amount of work for a unit of credit is always the same.

Text-books are purchased by the students themselves, usually through the Extension Division. When a student has finished a course the Extension Division will repurchase the books that are in good condition if the student desires to sell them. Reference books for supplementary reading may be borrowed from the University Library through the Extension Division.

Credit

All courses offered, except those listed under Commerce below, count toward the A.B. degree. Certain courses are credited toward the B.S. in Commerce. The Division of Certification of the State Department of Public Instruction at Raleigh will credit toward *state teachers' certificates* correspondence courses for which the University gives degree credit. A teacher may therefore earn by this method both degree and certification credit at the same time.

AMOUNT OF CREDIT—Nine courses are equal to one year of college work. One course (subject) equals three and one-third semester hours of certification credit, and a half course is equal to two semester hours. Either two courses or three half courses give credit equivalent to attendance at one summer school. This is the academic credit needed to renew a certificate.

It should be clearly understood that no *course* is offered to raise or renew any particular teaching certificate. Rather, correspondence instruction is given by the *subject* as in residence instruction, since each correspondence course parallels a residence course.

In general, any *certificate may be raised one class* by credit for four approved summer schools of not less than three five-hour courses each (twenty-four semester hours of work), or the equivalent in correspondence courses. This means eight full correspondence courses or twelve half courses, or a combination of half and full courses sufficient to make twenty-four semester hours. The quickest and best method for raising a certificate is to combine summer school and correspondence instruction.

ENTRANCE REQUIREMENTS—*An applicant for correspondence work must meet University entrance requirements and be enrolled in the University if either degree or certification credit is desired.* The University entrance requirements state that an applicant must have at least fifteen units from an accepted high school. The high school record must be transferred to the University on a blank which will be furnished for this purpose. An applicant for advanced standing may be admitted to the sophomore, junior, or senior class when credit for work taken at other colleges has been properly transferred to this University and accepted by the examining committee.

MASTER'S DEGREE CREDIT—At present no courses are offered toward the Master's degree. However, a *teacher* who is already a graduate of an A grade college and who still lacks some professional credits for a certificate may take certain professional courses by correspondence. These courses must be chosen only in one's own professional field. For instance, a primary teacher should not take a course in high school methods.

NOTICE TO TEACHERS—School teachers with sufficient ability and experience, who are working for certification credit, may take junior and senior correspondence courses though they may be technically rated as freshmen or sophomores. Eligibility of a teacher to take such correspondence courses will be decided by the head of the department and the dean of the school under which the subject is given.

Without Credit

Those who desire to take correspondence courses but do not wish degree credit may register for such, provided they can demonstrate their ability to carry on the work satisfactorily.

Fees

A fee of six dollars and a half ($6.50) is charged for each half course (subject); a fee of twelve dollars ($12) is charged for one course. No fees or parts of fees can be remitted after a course is once begun. A registration fee holds good for twelve months only. If it is desired to continue a course not completed within that time a new registration and fee will be required: One dollar and a half ($1.50) for a half course and three dollars ($3.00) for a full course.

RULES GOVERNING CORRESPONDENCE COURSES

1. Those wishing to take correspondence courses for credit must submit a transcript of their high school record on a blank furnished by the Extension Division.

2. Not more than two courses (subjects) may be carried at one time and it is advisable to take one course and complete that before registering for another.

3. Students may enroll for correspondence work at any time between September fifteenth and June first. It is important to register as early in the fall as possible (between September fifteenth and November first).

4. Work taken by correspondence must be completed within one year from date of registration, or a renewal fee will be required.

5. Those who wish credit must take a final examination upon the completion of all assignments in a course. This examination may be taken either at the University or at home under conditions approved by the University.

6. It is desirable that students send in at least one assignment per week.

7. A subject previously taken in any institution for which either degree or certification credit has already been given can not be taken for credit by correspondence.

8. One year of residence work is required by the University before any degree will be granted.

9. Teachers who need professional courses for certification credit must select courses only in their own professional field. For instance, a primary teacher cannot take a course in high school methods.

10. Not more than the equivalent of one year of residence work (nine full courses) may be earned by correspondence study. Four and one-half courses constitute the maximum of correspondence work which may be completed in any twelve-month period.

THE HONOR SYSTEM

Correspondence courses, like residence courses, are on the honor basis. The student body of the University has through a century of traditions developed an honor spirit and an honor system. A student who plagiarizes, copies, cheats, or in any way does dishonest work is not only denied credit for the course but is also dismissed from the University by his fellow students. Work must be honest above all other qualities. Each correspondence student is on his honor to do only honest work.

To make certain that there be no semblance of dishonor it should be an unfailing habit *never* to use the textbook or any other materials or aids after the questions have been read.

No credit will be given for a course in case the student has been false to the pledge of honor.

COURSES OF INSTRUCTION

(See Key Following List)

EDUCATION

Principles of Education (H)
Public School Education in the South (W)
Rural Education (W)
The Teaching of Mathematics in the High School (H)
Principles of Secondary Education (a) (H)
Principles of Secondary Education (b) (H)
General Methods in Secondary Education (a) (H)
General Methods in Secondary Education (b) (H)
Educational Measurements (b) (H)

ENGLISH

Freshman English (W)
Sophomore English (3) (W)
Sophomore English (4) (W)
English of Commerce (H)
The Short Story (W)
Modern Drama (H)
The Contemporary American Short Story (H)
Argumentation (H)
Introduction to Poetry (W)
The Teaching of English (H)

SOCIOLOGY

Community Organization (H)
Principles of Sociology (W)
Educational Sociology (a) (H)

Educational Sociology (b) (H)
The Study of Social Problems (H)
Crime and Its Social Treatment (W)
Family Problems (W)
Community Play and Recreation (H)

HISTORY

Foundations of Modern History (1) (W)
Foundations of Modern History (2) (W)
English History (W)
American History (W)
Modern European History (W)
History of North Carolina (W)

RURAL SOCIAL SCIENCE

Economics and History of Agriculture (W)
Farm Tenancy (W)
North Carolina: Economic and Social (W)
Agricultural Coöperation (W)

FRENCH

Masterpieces of French Literature (W)
French Composition (W)

SPANISH

Spanish Composition (W)
Masterpieces of Spanish Literature (5) (W)
Masterpieces of Spanish Literature (6) (W)

MUSIC

Theory of Music (Introductory) (H)
History of Music (Part I) (H)
Public School Music (W)

GEOLOGY

Introduction to Geology (Part A) (W)
Industrial and Commercial Geography (W)

MATHEMATICS

Mathematical Analysis I (W)
Mathematical Analysis II (W)
College Algebra (W)
Trigonometry (W)
The Teaching of Mathematics in the High School (H)

PSYCHOLOGY

General Psychology (1) (W)
General Psychology (2) (W)
Educational Psychology (W)

LATIN

Readings in Roman Literature (W)
Latin Composition (W)

GERMAN

Advanced German (W)

ECONOMICS

General Economics (1) (W)
General Economics (2) (W)
Economic History (W)
Banking (W)

COMMERCE

(Credit in the School of Commerce Only)

Accounting: Principles (W)
Investments (W)
Salesmanship (H)
Advertising (W)
Business Law (W)

KEY

(H) Half Course, two semester hours, $6.50.

(W) Whole Course, three and one-third semester hours, $12.00.

EXTENSION CLASSES

Every autumn extension classes in University subjects are organized in several cities. These classes meet one evening a week for sixteen weeks and are taught by members of the University faculty. Some of the subjects taught are salesmanship, advertising, accounting, English, history, mathematics, and education. The same credit is given for these extension classes as for residence work, provided the University entrance requirements are met. Those not wishing credit are eligible for these courses. Groups wishing to organize extension classes should send in their applications early. The minimum number of student for whom the Extension Division is willing to organize a class is usually held at twelve. The request for such a class should be accompanied by a full statement of the probable enrollment, the general type of persons who wish to take the course, how frequently the class wishes to meet, where it will meet, who will have charge of the local organization arrangements, and what particular course is desired. As many of these classes will be organized as the resources of the Division will permit.

Postgraduate medical courses for doctors are conducted in from twelve to twenty-four centers of the State each summer.

ADVANTAGES OF CORRESPONDENCE STUDY

Correspondence study offers unusual advantages for individual study. The powers of initiative, concentration, and self-reliance and the habit of study are developed to a degree not found in the class-room, because in correspondence study the student is constantly thrown upon his own resources and recites all of each lesson. The processes involved in the singling out of the essential points and the elimination of the non-essential, the organization of one's thoughts regarding the entire lesson and transferring this organized thought to written form in good, clear, concise English, are the processes which make this form of study so valuable. It must be clear to anyone familiar with the class-room that such processes are not possible there because of physical impediments. For these reasons, the late Dr. William R. Harper, of the University of Chicago, said: "The work done by correspondence is even better than that done in the class-room." President Roosevelt also gave this movement of modern times his approval by saying that in his opinion it was one of the remarkable improvements of the age.

By continuing correspondence study with an occasional summer term any teacher may, in a comparatively short time, earn a life certificate and thus materially add to his culture and earning capacity.

Students may take courses by correspondence while engaged in their work at full salary, and by employing their spare moments earn credits toward a degree or a teacher's certificate, or both, and increase their efficiency and earning capacity.

When correspondence instruction courses are taken all the resources of the University, and particularly of the School of Education, the Library and the Extension Division, are freely placed at the student's disposal. Every possible effort is made to be of the greatest personal as well as professional help. The limit of such assistance is set by the appeal for it and the physical ability to supply it. The whole spirit of this work is the spirit of service; its limits, therefore, are not the limits of the spirit but of the body.

II. BUREAU OF LECTURES

The University conducts a lecture bureau for the purpose of aiding schools, women's clubs, Rotary and Kiwanis clubs, and other organizations in obtaining speakers to discuss with them the problems incident to their daily activities and to interest them in those things which look to the upbuilding of the State and the cultivation

of the finer things of the spirit. Addresses for special occasions such as school and college commencements are also supplied upon application.

No fee for lecture service is charged but the traveling and incidental expenses of the lecturer are defrayed by the organization for which the lecture is made.

Each year the division publishes a bulletin containing full information as to subjects and lectures, copies of which can be secured upon application.

III. SHORT COURSES AND INSTITUTES

Occasionally there are held at the University short courses for teachers of community schools for adults, community service directors, and welfare workers. Also occasionally institutes and conferences are arranged in coöperation with other organizations in the state on good roads, country life, and state and county council.

Organizations or groups of workers wishing the Extension Division to arrange a short course, institute, or special meeting for them, should write to this bureau. Community or county institutes consisting of special lecture programs and group conferences will be set up in any community or county upon request, expenses to be defrayed by the local organizations.

IV. PUBLIC DISCUSSION

The aim of the Bureau of Public Discussion is to promote public discussion on live, up-to-date questions and to furnish information on current political, social and economic problems, as well as to encourage and assist in the study of good literature. The Bureau of Public Discussion is divided into six sections.

The Package Library Section serves as a background for all the work of the Bureau of Public Discussion. Pamphlets, clippings, and books on a given subject, assembled in a convenient form for mailing, constitute a package library.

The Women's Clubs Section prepares programs for sustained study by women's organizations. In the case of clubs following the printed programs a fixed charge is made.

The Parent Teacher Association Section encourages the organization of such associations and assists them in the preparation of programs. An Extension Bulletin containing sixty suggested programs has recently been issued.

Other Sections of this Bureau are as follows: Group Discussion, General Information, and Home Reading Courses.

V. BUREAU OF COMMUNITY DRAMA

The bureau aims to encourage the writing of original plays drawn from tradition and local history and also from the present-day life of the people. The services of a trained dramatic director will be supplied, where practicable, either to produce a play or to give advice concerning the final details of scenery, costuming, make-up, etc. Field agents will be sent out to advise concerning stage construction and equipment.

The bureau will undertake the direction of the writing of communal plays based on history and tradition. It will aid any community in securing an expert dramatic director who will take entire charge of the production if desired. The Library Extension Service may be utilized by any citizen of the state in selecting plays and pageants and procuring reference books on production, as well as historical material for the writing of community pageants and plays.

VI. COMMERCIAL AND INDUSTRIAL RELATIONS

This bureau is under the supervision of the School of Commerce of the University. The members of the staff are glad to coöperate with the manufacturing, banking, and commercial interests of the State in the solution of any problems which may be brought to their attention. Laboratories, statistical information, research methods, interpretative devices, and expert opinion are available for use by any worthy individual or organization. Problems may be submitted for study and opinion, or arrangements may be made for a member of the staff to visit the establishment or community for first-hand observation and study.

VII. BUREAU OF COMMUNITY MUSIC

The head of the Department of Music is available for the following services: 1. Leadership for community sings; 2. formation of community choruses; 3. lectures on public school and community music; 4. piano and organ recitals.

VIII. MUNICIPAL INFORMATION AND RESEARCH

This bureau is maintained by the School of Public Welfare and answers are given to specific inquiry with reference to legislation, charters, and other matters of interest. Through the Library Extension Service bibliographies, reading lists, and books on municipal subjects are loaned. The bureau also undertakes in a small way to advise with town and interested individuals concerning special problems, and to direct them to sources of assistance.

IX. RURAL SOCIAL ECONOMICS

Before a definite movement is inaugurated to upbuild a county or community from an economic and social standpoint, it is necessary to have at hand an accurate summary of existing facts. What is known as the "social survey" is the best method for securing such facts.

The Department of Rural Social Science of the University for years has been collecting data on social and economic conditions in North Carolina. This material is available through loans from the library, articles in the *News Letter,* and bulletins which record the results of a number of county economic and social surveys. The *News Letter,* which is edited by this department, appears fifty times each year.

During the year a large number of county and State-wide studies are made involving no small amount of time and drudgery, and thousands of letters are written in answer to inquiries about life and business in North Carolina.

X. COMMUNITY DEVELOPMENT

The Bureau of Community Development offers service along the line of community organization, recreation, student service, and child welfare. The School of Public Welfare is in charge of this work. Bibliographies and reading lists on the subject of sociology, community organization, etc., are provided upon request. Plans for community councils and coöperative work are suggested when desired. The services of field agents are available to visit towns with reference to special programs of recreation or community development.

XI. HIGH SCHOOL DEBATING AND ATHLETICS

The University Extension Division through this bureau offers a stimulating service to the high schools of the State in debate and athletics. The High School Debating Union is the medium through which assistance is offered in debate, and the high school athletic contests, five in number, provide the avenue for assistance in the development of athletics.

The High School Debating Union was organized in 1912-13 and has rounded out eleven years of successful service. Two hundred and fifty high schools, grouped in triangles, discuss some important

question each year. The schools winning both debates send their teams to the University to compete during high school week in the final contest for the Aycock Memorial Cup.

In the annual state championship contests a large number of schools enter. In each contest when the eastern and western sectional championship has been decided these two teams come to the University and play for State honors.

XII. DESIGNS AND IMPROVEMENTS OF SCHOOL GROUNDS

The principal function of the Bureau of Design and Improvements of School Grounds is to promote the beautification of public school grounds in North Carolina. However, designs and planting plans will also be prepared for church schools, churches, and charitable institutions.

The work of this bureau is carried on by visits of a field agent upon request, the preparation of specific plans, and the sending out of bulletins.

XIII. EDUCATIONAL SERVICE AND RESEARCH

This bureau is maintained through the coöperation of the School of Education. The several members of the faculty of the School offer to the State the following lines of service: Educational tests and measurements; school surveys; teachers' appointments; advice and counsel with reference to school buildings, equipment, and general administrative problems.

PART FIVE

THE SCHOOL OF LAW
THE SCHOOL OF MEDICINE
THE SCHOOL OF PHARMACY

THE SCHOOL OF LAW

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

ATWELL CAMPBELL MCINTOSH, A.M., LL.D., *Acting Dean.*

THE ADMINISTRATIVE BOARD

ATWELL CAMPBELL MCINTOSH, A.M., LL.D., *Professor of Law.*

PATRICK HENRY WINSTON, *Professor of Law.*

ROBERT HASLEY WETTACH, A.M., LL.B., S.J.D., *Associate Professor of Law.*

SPECIAL STAFF

PATRICK HENRY WINSTON, *Professor of Law.*

ATWELL CAMPBELL MCINTOSH, A.M., LL.D., *Professor of Law.*

GEORGE L. CLARK, LL.B., S.J.D., *Acting Professor of Law.*

ROBERT HASLEY WETTACH, A.M., LL.B., S.J.D., *Associate Professor of Law.*

ALBERT COATES, A.B., LL.B., *Assistant Professor of Law.*

FRED BAYS MCCALL, A.B., *Assistant Professor of Law.*

HENRY GROVES CONNOR, LL.D., Judge of the United States District Court, *Lecturer in the Summer School.*

WALTER PARKER STACY, A.B., LL.D., Associate Justice of the Supreme Court of North Carolina, *Lecturer in the Summer School.*

HISTORICAL SKETCH

The law school, which developed into the School of Law of the University, was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University, and it was

provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two-year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary, though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University.

This was the position of the school from its formation until 1899, a period which covered the professorship of Judge Battle who retired in 1879, two years when the law classes were conducted by Hon. Kemp P. Battle, then President of the University, and the professorship of Dr. John Manning, elected 1881, died 1899. In 1899 the school was completely incorporated into the University, with the late Judge James C. MacRae, previously a justice of the Supreme Court of North Carolina, as the first Dean of the Law School. Upon the death of Judge MacRae in 1910, Lucius Polk McGehee was elected Dean, and held this position until his death in 1923.

In 1919 the course of study for the degree was advanced from two years to three years. Since December, 1920, the school has been a member of the Association of American Law Schools. Beginning in September, 1923, the requirement for admission for regular students, not candidates for the degree, has been increased to one year of college grade work. And in September, 1925, this requirement will be increased further to two years of college grade work.

REQUIREMENTS FOR ADMISSION

See pages 49-53.

EXPENSES

See page 62.

REQUIREMENTS FOR GRADUATION

For the Degree of LL.B.

The degree of LL.B. is conferred upon students who, having satisfied the requirements of academic work, complete satisfactorily the three years course of study on pages 281-282.

For the Combined Degrees of A.B. and LL.B.

The University offers the combined degrees of A.B. and LL.B. to students who have complied with the following requirements:

The courses in the College of Liberal Arts outlined below; all academic work to be completed before matriculation in the School of Law; the completion of all courses in the School of Law prescribed for the degree of LL.B.

Students taking this combined course will be enabled to secure the two degrees in six instead of seven years.

Prescribed courses in the College of Liberal Arts for the combined degree:

	FIRST YEAR		SECOND YEAR	THIRD YEAR
	Eng. 1		Eng. 3-4	Econ. 1-2
	Math. 1-2		Lat. 3-4	Psychology 1-2
	Lat. 1-2		Hist. 3-4	Eng. 2 courses
	Hist. 1-2	Select one	Greek 5	History and Govt. 2 courses
Select one	Greek 3-4		French 5	
	French 3-4		Ger. 21	Elective 1 course
	Ger. 3-4	Select one	Math. 3-4	
			Phys. 1-2	
			Chem. 1-2	

REGULARITY OF ATTENDANCE ON CLASSES—ABSENCES

Students are required to be regular in attendance on all courses for which they are registered. A failure in regular attendance may prevent his receiving credit for the course. Students must report weekly at the office of the Dean on all absences. All unexcused absences must be explained to the satisfaction of the instructor teaching a course before the student will be admitted to the examinaion on the course.

NUMBER OF HOURS OF WORK REQUIRED AND PERMITTED

Students are not permitted to take more than fifteen hours of work weekly except with the special permission of the Faculty, granted only for good cause.

No student taking less than ten hours weekly will be considered as studying law within the rule of the Supreme Court requiring two years of study of law as a necessary preliminary of applicants for license to practise in North Carolina.

DIVISIONS OF ACADEMIC YEAR: DATES

Work in the School is divided into two semesters instead of into three quarters. The first semester begins at the same time as the fall quarter of the College of Liberal Arts, and ends on the

Saturday before the second Monday in February. The second semester begins on the second Monday in February and ends at the same time as the third quarter of the College of Liberal Arts.

COURSES AND METHODS OF INSTRUCTION

The courses offered and the general order in which it is advisable that they should be presented is indicated in the Program of Studies given below. Subjects required for the State Bar examination and not included in the first or second year courses outlined below may be taken in the summer school either after the first or second year. The instruction is mainly by study of cases and quizzes in connection therewith, but some courses are given in lectures or in connection with text books.

PROGRAM OF STUDIES

Synopsis of Courses

FIRST YEAR

	First Term	Second Term
Contracts	3*	3
Torts	3	2
Property I	3	3
Civil Procedure I	2	2
Criminal Law	3	—
Legal Bibliography	1	—
Equity I	—	2
Agency	—	3

SECOND YEAR

Property II	2	2
Equity II	2	2
Civil Procedure II	2	2
Evidence	2	2
Negotiable Instruments	3	—
Persons	3	—
Practice (drawing deeds, agreements)	1	—
Sales	—	3
Wills and Administration	—	3
Practice (Forms under Code)	1	1

* Number of hours a week.

THIRD YEAR

Constitutional Law	3	2
Private Corporations	2	2
Administrative Law	3	—
Insurance	3	—
Partnership or Mortgages and Suretyship	3	—
Federal Courts	2	—
Bankruptcy	—	2
Conflict of Laws	—	3
Trusts	—	2
Public Utilities or Statutes	—	3
Municipal Corporations or Damages	—	2

First Year

CONTRACTS: Three hours, both semesters. Costigan's *Cases on Contracts.* Professor McIntosh.

TORTS: Three hours, fall semester, two hours, spring semester. Burdick's *Cases on Torts.* Mr. McCall.

PROPERTY I: Three hours, both semesters. Warren's *Cases on Property.* Professor Wettach, fall semester; Professor Clark, spring semester.

CIVIL PROCEDURE I: Two hours, both semesters. The principles of civil procedure at common law with references to modern statutory modifications, followed by an outline of equity pleading, as an introduction to Civil Procedure II. Scott's *Cases on Civil Procedure.* Mr. McCall.

CRIMINAL LAW: Three hours, fall semester. Includes outline of criminal procedure. Derby's *Cases on Criminal Law.* Professor Coates.

AGENCY: Three hours, spring semester. Reinhard's *Cases on Agency.* Professor Winston.

EQUITY JURISPRUDENCE I: Two hours, spring semester. General principles and maxims, injunctions against torts. Clark's *Cases on Equity, Part I.* Professor Winston.

LEGAL BIBLIOGRAPHY: One hour, fall semester. Introduction to the knowledge and use of law books. Professor Coates.

Second Year

PROPERTY II:* Two hours, both semesters. Warren's *Cases on Conveyances.* Professor Clark.

EQUITY II: Two hours, both semesters. Clark's *Cases on Equity, Parts I and II.* Professor Coates.

PROCEDURE II: Two hours, both semesters. Rush's *Equity Pleadings.* N. C. Code of Civil Procedure, lectures, and selected cases. Professor McIntosh.

EVIDENCE: Two hours, both semesters. Hinton's *Cases.* Professor McIntosh.

NEGOTIABLE INSTRUMENTS: Three hours, fall semester. Smith and Moore's *Cases.* Professor Wettach.

SALES: Three hours, spring semester. Williston's *Cases on Sales,* third edition. Professor Wettach.

PERSONS: Three hours, fall semester. Woodruff's *Cases on Persons and Domestic Relations,* third edition. Mr. McCall.

WILLS AND ADMINISTRATION: Three hours, spring semester. Making and construction of wills, administration of estates. Costigan's *Cases on Wills; N. C. Statutes.* Professor Winston.

PRACTICE: One hour a week, both semesters. The fall semester is devoted to preparation of deeds and various agreements; the spring semester to pleading and papers required in litigation. Professor McIntosh.

Third Year

CONSTITUTIONAL LAW: Three hours, fall semester; two hours, spring semester. Hall's *Cases.* Professor Wettach.

PRIVATE CORPORATIONS: Two hours, both semesters. Warren's *Cases on Corporations.* Professor Coates.

ADMINISTRATIVE LAW: Three hours, fall semester. Public officers, administrative officials, and boards; character and finality of their actions; remedies. Freund's *Cases in Administrative Law.* Professor Winston.

INSURANCE: Three hours, fall semester. Richard's *Cases on Insurance.* Professor Winston.

* This course was given four hours in spring semester, 1924, instead of two hours in both semesters.

PARTNERSHIP: Three hours, fall semester, 1923-1924 and alternate years. Gilmore's *Cases on Partnership,* third edition. Professor Winston.

MORTGAGES AND SURETYSHIP: Three hours, fall semester, 1924-1925 and alternate years. Kirchwey's *Cases.* Professor Winston.

FEDERAL COURTS: Two hours, fall semester, 1924-1925 and alternate years. Hughes' *Federal Procedure.* Professor McIntosh.

BANKRUPTCY: Two hours, spring semester, 1923-1924 and alternate years. Student's Remington. Professor McIntosh.

CONFLICTS OF LAWS: Three hours, spring semester. Beale's *Cases on Conflict of Laws, Shorter Course.* Professor Wettach.

TRUSTS: Two hours, spring semester. Clark's *Cases on Trusts.* Professor Clark.

LEGISLATION: Three hours, spring semester, 1924-1925 and alternate years. Assigned Statutes, constitutional provisions, and cases. Professor Coates.

PUBLIC UTILITIES: Three hours, spring term, 1923-1924 and alternate years. Beale's *Cases on Carriers.* Professor Coates.

MUNICIPAL CORPORATIONS: Two hours, spring term, 1924-1925 and alternate years. Macy's *Cases.* Professor McIntosh.

DAMAGES: Two hours, spring term 1923-1924 and alternate years. Mechem and Gilbert's *Cases on Damages.* Mr. McCall.

The foregoing, except as otherwise stated, is the course of study pursued during the year 1923-1924.

THE NEW LAW BUILDING

The new law building, known as Manning Hall, was ready for occupancy at the beginning of the term in September, and the Law School was removed from the old Smith Hall, which it had occupied for several years, into its new quarters. The building occupies a prominent place in the new group of University buildings, and is well provided with ample accommodations for lecture halls, library, and reading rooms.

THE NORTH CAROLINA LAW REVIEW

The North Carolina Law Review, issued quarterly, is published by the Law School. It is devoted to discussion of legal problems and new cases, especially those of interest to North Carolina lawyers. The opportunity afforded the more advanced students, whose

work is of high grade, to take part in the preparation and management of the *Review,* should be of the greatest advantage to them and an incentive to the highest effort.

LAW CLUBS AND LAW SCHOOL ASSOCIATION

Each law club is composed of eight students from the first year class, and a proportionate number from the second and third year classes. Their work takes the form of argument of cases before appellate courts. The arguments of the first year students are within the clubs, while the arguments of the second and third year students are between the clubs.

These clubs join together in the Law School Association, with the sole purpose of promoting the interests of the Law School. The presidents of the clubs form a board of directors of the Association, and the members of the Law School faculty together with representatives of the University administration form a board of advisors.

ADDRESSES AND LECTURES

The Law School Association has invited the Justices of the Supreme Court of North Carolina to address the members of the Law School during the spring of 1924. And it is proposed to have a series of lectures from time to time delivered by prominent Judges and members of the Bar in the State.

ADDITIONAL OPPORTUNITIES OF UNIVERSITY LIFE

Students in the Law School may be admitted without additional expense to the courses given in the Departments of Economics, English, Philosophy, and History in the College of Liberal Arts, subject to the rules stated as to the number of hours which a student may take, and subject to the approval of the Dean of the School of Law. A student taking such a course must satisfy the entrance requirements for the course selected.

Students of the School may become members of the Dialectic and Philanthropic Literary Societies, where they may take part in or witness debates of a high order and train themselves in parliamentary law.

As students of the University, they enjoy all the privileges of the University library, the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

PRIZES

THE LEGAL RESEARCH PRIZE, offered by The American Law Book Company, is awarded annually to the member of the Junior or Senior class who makes the highest average in the Legal Research Courses given in the Junior year in connection with the class in Practice and in the Senior year in connection with the class in Constitutional Law. The prize consists of a set of "Corpus Juris, so far as published, supplemented by the Cyclopedia of Law and Procedure covering the as yet unpublished portions of Corpus Juris. The volumes of Corpus Juris will be supplied the winners of this prize as rapidly as they appear."

THE CALLAGHAN PRIZE IN LAW. A copy of the Cyclopedic Law Dictionary is offered by Callaghan and Co., Law Publishers, to that member of the Senior class each year who obtains the highest general average in his work for the year.

SUMMER LAW SCHOOL

A summer course in law is offered, beginning the day after Commencement and continuing to the end of the week preceding the Supreme Court examination for admission to the Bar in August. It is intended to provide a review of the course required by the Supreme Court of the State for applicants for license.

SESSION

The term for the summer of 1924 begins Thursday, June 12, and ends Friday, August 15, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

LECTURES AND RECITATIONS

At this session two daily lectures and recitations of one hour and a half each will be held by professors of the Law Faculty and competent instructors. In addition there will be frequent quizzes. The two courses offered are intended to cover the requirements for reading prescribed, given below, in the rules of the Supreme Court of North Carolina. The instruction is conducted by means of text-books, lectures, leading cases, and quizzes.

An outline of the work and of the time assigned to the various subjects is approximately as follows:

Domestic Relations (6 lectures); Contracts and related topics (18 lectures); Torts and related topics (10 lectures); Corporations (8 lectures); Evidence (6 lectures); Pleading and The Code (10 lectures); Criminal Law (6 lectures); Property, real and personal (22 lectures); Executors and Administrators (6 lectures); Equity (10 lectures); Constitutional Law (9 lectures); Legal Ethics (1 lecture).

The text-books used will be, as far as possible, those used at the regular session of the school, but any standard textbook on any of these subjects will be accepted.

EXAMINATIONS

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to enable him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

FEES AND EXPENSES

Tuition for term	$30.00
Registration and Incidental Fees	5.00

The above mentioned fees cover privileges of the University library, gymnasium, and baths. Board in the village, with room, will cost from $25.00 to $37.50 a month; without room, from $20.00 to $30.00.

For further information address the President of the University or the Acting Dean of the School of Law, Chapel Hill, N. C.

THE SCHOOL OF MEDICINE

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*

ISAAC HALL MANNING, M.D., *Dean.*

THE ADMINISTRATIVE BOARD

ISAAC HALL MANNING, M.D., *Professor of Physiology.*

CHARLES STAPLES MANGUM, A.B., M.D., *Professor of Anatomy.*

WILLIAM DEBERNIERE MACNIDER, M.D., *Kenan Professor of Pharmacology.*

JAMES BELL BULLITT, A.M., M.D., *Professor of Pathology.*

WESLEY CRITZ GEORGE, Ph.D., *Associate Professor of Histology and Embryology.*

SPECIAL STAFF

CHARLES STAPLES MANGUM, A.B., M.D., *Professor of Anatomy.*

ISAAC HALL MANNING, M.D., *Professor of Physiology.*

WILLIAM DEBERNIERE MACNIDER, M.D., *Kenan Professor of Pharmacology.*

JAMES BELL BULLITT, A.M., M.D., *Professor of Pathology.*

ROBERT BAKER LAWSON, M.D., *Associate Professor of Applied Anatomy.*

WESLEY CRITZ GEORGE, A.B., Ph.D., *Associate Professor of Histology and Embryology.*

DANIEL ALLAN MACPHERSON, Sc.M., *Associate Professor of Bacteriology.*

ROY BOWMAN MCKNIGHT, A.B., M.D., *Associate Professor of Pharmacology.*

KEBLE BARNUM PERINE, S.B., *Instructor in Physiological Chemistry.*

ALVIN SAWYER WHEELER, Ph.D., *Professor of Organic Chemistry.*

JOHN GROVER BEARD, Ph.G., *Professor of Pharmacy.*

HISTORICAL SKETCH

The School of Medicine was established in 1879 under the direction of Dr. Thomas W. Harris. A course in theoretical and practical medicine, as was the custom at the time, was offered, but

this plan was found impracticable and was abandoned in 1886. In 1890, however, a more orderly and logical arrangement of the subjects of the medical course had begun, and it became possible for a university, without clinical facilities, to offer instruction in the elementary subjects. Dr. Richard H. Whitehead was then elected Professor of Anatomy, and under his guidance the School was re-opened and has continued without interruption. In 1900, the medical course having been extended in the better class of schools to four years, the subjects of the first two years were offered at the University. In 1902 a Clinical Department was established at Raleigh, but after several years of unsuccessful effort to provide for its proper support, it was abandoned. In 1908 the School was admitted to membership in the Association of American Medical Colleges, and is graded in the class A group by the American Medical Association.

REQUIREMENTS FOR ADMISSION

See page 54.

EXPENSES

See page 62.

COURSES OFFERED

The following courses are offered:

1. A Premedical Course of Two College Years. This course is arranged to provide the subjects and number of hours required for admission by a large number of medical schools. It is offered as a guide to those students beginning a preparation for the study of medicine who are unwilling or unable to take a more extensive collegiate course. See page 203.

2. A Combined Course Leading to the Degree of Bachelor of Science in Medicine. This is a combination course of three collegiate years including the subjects most fundamental in the preparation for the study of Medicine and the medical course of two years, upon the completion of which the degree of Bachelor of Science in Medicine is granted. The student may, therefore, obtain a collegiate degree and the degree of Doctor of Medicine in seven years. It is recommended to those who find it impracticable to spend four years in collegiate work. See pages 201-202.

3. The Medical Course. The course leading to the degree of Doctor of Medicine consists regularly of four years in strictly medical subjects. The subjects are arranged naturally into two

main groups, the so-called Laboratory and Clinical groups, and two years are given to each group. The course offered in this school includes the subjects of the first group and occupies a period of two years. Upon completing this course, the student is prepared to begin the study of the clinical subjects, and may enter the third year in another medical school. Full credit is allowed in practically all medical schools.

SPECIAL NOTICE

An applicant notified of his acceptance must deposit with the treasurer of the University not later than August 15, a fee of $67.00; otherwise the acceptance will be withdrawn. If the applicant presents himself for registration and remains in the school during the first quarter the deposit will be accredited to his account; otherwise the deposit will be forfeited.

THE MEDICAL COURSE

First Year

BIOLOGICAL CHEMISTRY: Nine hours a week, winter quarter.

HISTOLOGY: Fifteen hours a week, spring quarter.

OSTEOLOGY AND ARTHROLOGY: Six hours a week, winter quarter.

GROSS ANATOMY: Twenty hours a week, winter quarter.

NEUROLOGY: Twelve hours a week, spring quarter.

APPLIED ANATOMY: Six hours a week, spring quarter.

EMBRYOLOGY: Three hours a week, fall quarter; six hours a week, spring quarter.

BACTERIOLOGY: Fifteen hours a week, spring quarter.

PHARMACY: Four hours a week, fall quarter.

Second Year

BIOLOGICAL CHEMISTRY AND TOXICOLOGY: Six hours a week, fall quarter.

PHYSIOLOGY: Twelve hours a week, fall quarter; six hours a week, winter quarter.

IMMUNOLOGY: Nine hours a week, fall quarter.

PATHOLOGY: Six hours a week, fall quarter; eight hours a week, winter quarter; twelve hours a week, spring quarter.

PHARMACOLOGY: Three hours a week, fall quarter; ten hours a week, winter and spring quarters.

Minor Surgery: Four hours a week, winter quarter.
Physical Diagnosis: Four hours a week, spring quarter.
Hygiene: Three hours a week, winter quarter.

Summary of First and Second Years

Subjects	*Hours*
Biological Chemistry	160
Anatomy	720
Physiology	198
Bacteriology and Immunology	250
Pathology	275
Pharmacy	60
Minor Surgery and Physical Diagnosis	84
Hygiene	33

EXAMINATIONS

Regular examinations on the first year subjects will be held during the examination periods of the College of Liberal Arts at the close of each quarter. In the second year the examinations will be held at the close of the course. Special examinations for the removal of conditions will be allowed during the week preceding the close of the third quarter and during registration week in September.

An examination will not be allowed a student who is charged with ten per cent of unexcused absences, or with absences amounting to twenty per cent of the total number of hours assigned the subject.

PROMOTIONS

If a student makes a grade of F. or fails on a second examination in any subject, he will be required to repeat the subject with the succeeding class. If a first year student fails on two subjects he will not be registered at the next session as a second year student, but as a special student, and he will be required to repeat all subjects of the first year in which his work has been unsatisfactory. He will be allowed to take only such subjects of the second year as will not conflict with such subjects of the first year as he may be repeating.

If a second year student makes a grade of E on any subject he will be allowed a second examination during the month of July. If he makes a grade of F on one of the major subjects, or a grade

of E on two of the major subjects he will not be recommended for admission to the third year of any medical school. He may be readmitted to the succeeding second year class provided there is a vacancy and there is, in the judgment of the medical faculty, a reasonable hope of his doing creditable work.

A certificate will be granted to a student who completes satisfactorily the required preliminary work and the medical course. In the event of a failure to complete the work a statement indicating the subjects completed will be given. Credit will not be allowed for attendance only.

LABORATORIES

For description of the medical laboratories see page 36.

SCHOLARSHIPS

THE WOOD SCHOLARSHIP. (Established in 1895.) Mrs. Mary Sprunt Wood, of Wilmington, has founded a scholarship in memory of her husband, the late Dr. Thomas Fanning Wood.

COURSES OF INSTRUCTION

Chemistry

73. TOXICOLOGY. Prerequisites, Chemistry 61-62.

The chemical behavior of poisons and their separation from foods and animal tissues. *Fall quarter.* Mr. Perine.

Anatomy

The courses include gross and microscopic anatomy, embryology, the topography of the body, the application and relation of anatomy to medicine and surgery, and the anatomy of the Central Nervous system and the organs of Special Sense.

Ample facilities are offered to any who may desire to pursue advanced work in the field of Anatomy.

1. OSTEOLOGY AND ARTHROLOGY.

Detailed study of the skeleton, each student being provided with a complete set of disarticulated bones which he is required to demonstrate and draw. The joints are studied from prepared specimens. *Six hours a week, fall quarter.* Professor Mangum.

2. GROSS ANATOMY.

The student makes a complete dissection of the human body under the constant supervision and direction of an instructor, who insists upon the use of the texts, guides, and atlases, and holds practical examinations upon

the cadaver. Laboratory talks, demonstrations, and conferences take the place of lectures. Texts: Cunniugham, Gray, Piersol. *Twenty hours a week, winter quarter.* Professor Mangum.

3. GENERAL HISTOLOGY AND ORGANOLOGY.

This course includes: (a) study of the fundamental tissues, followed by (b) the study of the microscopic structures of the various organs. Lectures, demonstrations, and laboratory. Text: Jordan. *Fifteen hours a week, fall quarter.* Professor George.

4. CYTOLOGY AND HISTOGENESIS.

Those who have completed course 2 or its equivalent will be offered an opportunity to pursue further work in Cytology and Histogenesis. Arrangements for this course may be made with the instructor. Professor George.

5. EMBRYOLOGY.

(a) Lectures and laboratory study of the early processes in the formation of the vertebrate body. (b) Lectures, demoustrations, and laboratory study of mammalian embryos. Text: Prentiss-Arey. *Three hours a week, fall quarter; six hours a week, spring quarter.* Professor George.

6. CENTRAL NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE.

A special laboratory study of the gross and microscopic anatomy of the cord and encephalon. Each student is provided with numerous prepared dissections of the human brain and a series of sections through the cord of the brain stem, which he studies with the aid of a guide. A human brain is then given to each group of four men and by them dissected in order to correlate and systematize the work already done. A practical examination tests the studeut's ability to locate the various tracts and nuclei. *Twelve hours a week, spring quarter.* Professor Mangum.

7. APPLIED ANATOMY.

Embraces the external markiugs and surface auatomy of the organs (viscera, vessels, nerves, etc.), their location and inter-relationships; topographical landmarks (uormal and abnormal); iucisions to reach arteries and nerves; influeuce of muscles upon fractures and laxations; and many other practical facts which may serve as aids to diagnosis and treatment. Instruction is by lectures aud demonstrations upon the cadaver. Special dissections, preparations, models, and numerous drawings by the students are used as aids in this course. Text: Davis. *Six hours a week, spring quarter.* Professor Lawsou.

MINOR SURGERY.

Lectures and Laboratory: The lecture course will cover the method of the treatment of wounds, the dislocations, fractures, and some of the more common surgical conditions. In the laboratory the student is taught bandaging, and will be given an opportunity to practice some of the amputations and resections of joints on the cadaver. Text: Wharton. *Four hours a week, winter quarter.* Professor Lawson.

PHYSICAL DIAGNOSIS.

Lectures and Laboratory: A brief course in the methods of physical examination, largely of the normal person. As far as possible, abnormal heart and lung cases will be submitted for examination. Text: DaCosta. *Four hours a week, spring quarter.* Professor Lawson.

Pharmacy

8. PHARMACY FOR MEDICAL STUDENTS.

This course in pharmacy will consist of two lectures supplemented by two laboratory periods each week. Beginning with a consideration of the metric system as applied to writing prescriptions and preparing formulae, the course will embrace successively medical arithmetic, prescription writing, official galenical and magistral preparations with their doses, cellulose and its compounds, carbohydrates, coal and wood tar products, resins, gums, esters, volatile oils, alkaloids, animal drugs, and, lastly, solubility and incompatibility. The student will be required to make the preparations commonly prescribed, in order that he may be acquainted with their nature and composition. In addition, he must demonstrate the various forms of incompatibility liable to occur in prescriptions. Text-book: *United States Pharmacopeia. Four hours a week, fall quarter.* Professor Beard.

Physiology

PHYSIOLOGY.

The course in Physiology is given in three parts, as follows:

1. Physiology: a lecture course of six hours a week for two quarters in which the functions of the systems of organs are explained and discussed as fully as time permits. The subjects include the digestion, the circulation, respiration, elimination, metabolism, the internal secretions, heat regulation, the nervous system, and the special senses. Attention is called to pathological conditions which are commonly associated with disturbed function and which emphasize the importance of normal function. Text: Howell.
2. Biological Chemistry 1: a lecture and laboratory course of nine hours a week during the winter quarter of the first year in which the fundamental principles of the subject are discussed and illustrated by appropriate experiments in the laboratory as far as possible. The chemistry of the "body stuffs," of digestion, of metabolism, and the other general subjects of physiological chemistry are treated in the usual way.
3. Biological Chemistry 2: In the fall quarter of the second year the class is divided into two sections for the more difficult work in blood and urine anlysis, basal metabolism, etc. Text: Pettibone, Matthews, Folin.
4. Experimental Physiology: a laboratory course of six hours a week during the fall quarter of the second year. In this course the student learns the use of physiological apparatus; studies the neuro-muscular system and heart on the frog and turtle; the vascular and respiratory systems on the rabbit and dog; and performs a limited number of experiments on the human, making pulse records, taking blood pressure, etc. Laboratory Notes. Professor Manning and Mr. Perine.

Materia Medica and Pharmacology

1. PHARMACOLOGY.

1. Material Medica. The preliminary study of drugs is given as a part of the course in Pharmacy by Professor Beard throughout the fall quarter of the first year in medicine. The student is required to learn the various preparations of the more important drugs, their dose, and chemical incompatibilities. Each student makes representative preparations of the different drugs.

2. Pharmacology. The course in Pharmacology extends throughout the second year of the medical curriculum. The character of the work permits a division of the course into three parts: (a) A consideration of the ways in which drugs may affect the organism. This introduction embraces a discussion of the various physico-chemical forces influencing drug activity, and the modification of the action of these conditions in different pathological states of the organism, such, for instance, as febrile conditions and various metabolic disturbances. (b) A general study of the pharmacology of the important drugs. The drugs are considered in groups depending upon their predominant effect in the body. The student learns the preparation, their dose, physiological incompatibilities, and considers in detail the way in which the drugs act as pharmacological agents. The symptoms and treatment of poisoning are considered following the discussion of the pharmacology of the group. (c) A consideration of the pharmacology of drugs in the pathological animal, with a discussion of the modification of drug activity in various pathological states. In conjunction with this study emphasis is given to the use of drugs as therapeutic agents and a study is made employing such remedies as are indicated in the form of a prescription. Students are required to write prescriptions, which are then subjected to the criticism of various members of the class and the instructor.

3. Pharmacodynamics. This part of the general course in pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the student. Each student is required to hand into the instructor at the completion of the course a laboratory notebook containing a detailed account of each experiment, an explanation of the results obtained, and the tracings made during the experiment. Oral and written recitations are frequently held. Text: Sollmann. Reference: Cushny; Meyer and Gottlieb, *Pharmacology, Experimental and Clinical;* Jackson, *Experimental Pharmacology. Three hours a week, fall quarter; ten hours a week, winter and spring quarters.* Professors MacNider, Beard, and McKnight.

2. ADVANCED PHARMACOLOGY.

Two types of courses will be offered: (a) an experimental study of the action of various drugs upon the normal animal; (b) an experimental study of the action of various drugs and other agents upon the pathological animal. Professors MacNider and McKnight.

Bacteriology and Pathology

1. PRINCIPLES OF BACTERIOLOGY. Prerequisites, Chemistry 1-2 and Botany 1.

   A lecture and laboratory course offered as a general science course. The fundamental principles of bacteriology are emphasized, and the student is trained in general bacteriological technique. The morphological and biological characteristics of the molds, yeasts, and saprophytic bacteria are studied. Pure cultures are isolated from air and water, and identification attempted. The applications of bacteriology to agriculture, industry, and the home are considered. (Registration of a minimum of eight students required.) Text: Marshall's "Microbiology." *Six hours a week, winter* quarter. Credit, 1 course. *Elective. *Laboratory fee, $4.00.* Professor MacPherson.

2. MEDICAL BACTERIOLOGY. Required of medical students. *College elective. Prerequisites, Chemistry 1-2 and Bacteriology 1.

   The early weeks of the course are devoted to a thorough grounding in the fundamental principles of bacteriology. Each student prepares the various culture media in common use; cultivates and describes several nonpathogens from stock cultures; and practices the more useful staining methods. Pure cultures are isolated from air and water, and their biology studied. The major portion of the course is devoted to the detailed study of the pathogens. Unknown mixtures are used to test the student's ability to differentiate organisms of the various groups. Practical applications of bacteriology in the diagnosis of disease are stressed by the examination of sputa, pus, feces, and blood. Animal inoculations are made to demonstrate the processes of infection and the differentiation of certain organisms. Lectures cover all the more important diseases. Text: Jordan's "Bacteriology." *Fifteen hours a week, spring quarter.* Credit, 2 courses. *Laboratory fee (non-medical students), $6.00.*

3. PUBLIC HEALTH AND HYGIENE. Required of medical students. *College elective. Prerequisite, Bacteriology 1.

   Lectures and quizzes on the sources, mode of spread, and control of communicable diseases; child hygiene; industrial hygiene; water and sewage purification; vital statistics; and epidemiology. Text: Rosenau's "Preventive Medicine." *Three hours a week, winter quarter.* Credit, ½ course. Professor MacPherson.

4. INFECTION, IMMUNITY, AND SERUM DIAGNOSIS. Required of medical students. *College elective. Prerequisite, Bacteriology 2 or its equivalent.

   The early laboratory work is designed to demonstrate the basic principles of immunology and serology. Practical training is given in the production and use of agglutinins, precipitins, lysins, and complement fixing antibodies. Vaccines are prepared, and their use demonstrated. The

* Before registering for this course the academic student must secure the permission of his Dean.

preparation and standardization of antimicrobic and antitoxic sera is studied. Anaphylaxis and allergy are produced in animals, and methods of diagnosis and desensitization practiced. The student is required to prepare his own materials, and to inject and bleed animals himself. Special attention is given to the use of these principles in the diagnosis of blood stains; blood grouping; typhoid fever; typhus fever; diphtheria; tuberculosis; hay fever; gonorrhoea; and syphilis. Unknown specimens test the student's ability to use the reactions. Lectures consider the principles of infection, immunity, and resistance. Text: Kolmer's "Infection, Immunity, and Biologic Therapy." *Nine hours a week, fall quarter. Fee for non-medical students, $10.00.* Credit, 1 course. Professor MacPherson and .....

5. PUBLIC HEALTH LABORATORY METHODS. Prerequisite, Bacteriology 1 or its equivalent.

A course of training in the modern bacteriological methods employed in the routine work of a public health laboratory. Practice is afforded in the laboratory diagnosis of diphtheria, tuberculosis, typhoid fever, pneumonia, malaria, gonorrhoea, syphilis, and rabies. The bacteriological examination of water, milk, and canned goods is also practiced. The course is designed for medical students, and those wishing to qualify as bacteriological laboratory technicians. *Six hours a week, spring quarter. Laboratory fee for non-medicinal students, $6.00.* *Credit, 1 course. Professor MacPherson.

6. ADVANCED BACTERIOLOGY AND RESEARCH. Prerequisite, Bacteriology 2 or its equivalent.

Opportunity and facilities are offered to qualified students to pursue advanced work in bacteriology and immunology. *Hours arranged.* *Credit, 1 to 3 courses. Professors Bullitt and MacPherson.

PATHOLOGY.

This course embraces a consideration of General and Special Pathology from the chemical and physiological as well as the morphological aspects. Lectures and recitations are combined with laboratory work in a study of both gross and microscopical preparations.

In this work carefully selected loan sections form the basis for the study, but especial attention is paid to the experimental production, in laboratory animals, of the various common lesions due to mechanical, chemical, and bacterial agents. Under the guidance of the instructor the student produces these lesions and prepares his own specimens therefrom. Text: MacCallum, Mallory. *Six hours a week, fall quarter; eight hours a week, winter quarter; twelve hours a week, spring quarter.* Professor Bullitt.

* Before registering for this course the academic student must secure the permission of his Dean.

SCHEDULE OF CLASSES

First Year

FIRST QAURTER	Histology 8:30-12 Every day except	Osteology 12-1 Every day	Embryology 8:30-12 Sat.	Pharmacy 2-4, Mon. & Wed. 2-3 Tues. & Thurs.	
SECOND QUARTER	Anatomy 8:30-1 Every day	Bio-Chemistry 2-5 Mon. & Fri. 2-3, Tues., Wed., Thurs.			
THIRD QUARTER	Applied Anatomy 8:30:9:30 Every day	Embryology 9:30-1 Mon. & Tues.	Neurology 9:30-1 Wed., Thurs., Fri., Sat.	Bacteriology 2-5 Every day except Sat.	

Second Year

FIRST QUARTER	Physiology 8:30-9:30 Every day	Exp. Physiology and Bio. Chem. Alternating Secs. 9:30-1 and 2-4 Mon. & Fri.	Pharmacology 9:30-11 Tues., Thurs., Sat.	Pathology 9:30-12 Wed. 11-12, Tues., Thurs. 11-1, Sat.	Immunology 12-1 & 2-4 Tues., Wed., Thurs.
SECOND QUARTER	Physiology 8:30-9-30 Every day	Pharmacology 9:30-1 and 2-4 Mon. and Fri. 9:30-11, Tues., Wed., Thurs.	Pathology 11-1, Tues., Wed., Thurs.	Hygiene 2-3, Tue., Wed., Thurs.	Minor Surgery 3-5, Tues. & Thurs.
THIRD QUARTER	Pharmacology 8:30-9:30 Every day except Sat. 8:30-1 and 2-4, Secs., Mon. and Fri.	Pathology 9:30-1, Tues., Wed., Thurs., Sat	Phyiscal Diagnosis 2-4 Tues., Thurs.		

THE SCHOOL OF PHARMACY

HARRY WOODBURN CHASE, Ph.D., LL.D., *President.*
EDWARD VERNON HOWELL, A.B., Ph.G., *Dean.*
JOHN GROVER BEARD, Ph.G., *Secretary.*

THE ADMINISTRATIVE BOARD

EDWARD VERNON HOWELL, A.B., Ph.G., *Professor of Pharmacy.*
JOHN GROVER BEARD, Ph.G., *Professor of Pharmacy.*
EDWARD VERNON KYSER, Ph.G., *Associate Professor of Pharmacy.*

SPECIAL STAFF

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JOHN GROVER BEARD, Ph.G., *Professor of Pharmacy.*
FRANCIS PRESTON VENABLE, Ph.D., Sc.D., LL.D., *Kenan Professor of Chemistry.*
WILLIAM DEBERNIERE MACNIDER, M.D., *Kenan Professor of Pharmacology.*
ALVIN SAWYER WHEELER, Ph.D., *Professor of Organic Chemistry.*
JAMES MUNSIE BELL, *Smith Professor of Chemistry.*
JAMES BELL BULLITT, A.M., M.D., *Professor of Pathology.*
JAMES TALMAGE DOBBINS, Ph.D., *Associate Professor of Chemistry.*
FRANK CARL VILBRANDT, Ph.D., *Associate Professor of Industrial Chemistry.*
FLOYD HARRIS EDMINSTER, Ph.D., *Assistant Professor of Chemistry.*
EDWARD VERNON KYSER, Ph.G., *Assistant Professor of Pharmacy.*
ROY BOWMAN MCKNIGHT, A.B., M.D., *Assistant Professor of Pharmacology.*
HENRY ROLAND TOTTEN, A.M., *Instructor in Botany.*
WILLIAM RUSSELL MCDONALD, *Assistant in Pharmacy.*
HENRY CLAY ROSS, *Assistant in Pharmacy.*
WAITS ARTEMUS WARD, *Assistant in Pharmacy.*
CHARLES RAYMOND WHITEHEAD, *Assistant in Pharmacy.*

HISTORICAL SKETCH

In 1880 Dr. Thomas W. Harris was instrumental in establishing a Pharmacy School at the University in connection with the School of Medicine. Dr. Harris was Professor of Anatomy, Materia Medica, and Pharmacy. The faculty of the new school consisted

in addition to Professor Harris, of Frederick W. Simonds, Professor of Botany and Physiology, and Francis P. Venable, Professor of Chemistry. The course in pharmacy extended over two sessions of five months each, and led to the degree of Graduate in Pharmacy (Ph.G.). The school was continued until the resignation of Dr. Harris in 1886, when it was abandoned completely. In the fall of 1889 the school was revived by Dr. Richard H. Whitehead, but again its career was cut short.

In March of 1897 the present School of Pharmacy was established, and Edward Vernon Howell, A.B., Wake Forest College, and Ph.G., Philadelphia College of Pharmacy, was elected Professor of Pharmacy and given charge of the school. At that time the school occupied the ground floor of the New West Building, which had been provided with laboratories, lecture rooms, a herbarium, and a reading room. The first lectures, offered in September of 1897, pertained to practical and theoretical pharmacy, materia medica, physiology, physics, general and analytical chemistry, and botany. The course of study extends over two sessions of nine months each and leads, as did the courses in the initial school, to the degree of Graduate in Pharmacy (Ph.G.)

The school has gradually developed with respect to members of the faculty, equipment, apparatus, and attendance. In the summer of 1912 it was moved to Person Hall, a commodious, well-lighted, well-ventilated building containing ten rooms. The pharmaceutical library has been made valuable by many historical and modern books on pharmacy and its allied branches and by bound volumes of proceedings and journals, either given by friends or purchased by the University. In 1914 two new courses in pharmacy were added to the curriculum; one, a three-year course, leads to the degree of Doctor of Pharmacy (P.D.); the other, also a three-year course, leads to the degree of Pharmaceutical Chemist (Ph.C.). In 1917 the school was admitted to membership in the American Conference of Pharmaceutical Faculties, an organization founded for the promotion of pharmaceutical education. Member-colleges, in order to retain their membership, must maintain certain entrance and graduation requirements and must in other ways follow out general practices as determined by the Conference.

REQUIREMENTS FOR ADMISSION

See pages 48-54.

EXPENSES

See page 61.

COURSES OFFERED

For the Degree of Graduate in Pharmacy

In order to be recommended for the degree of Graduate in Pharmacy the student must have completed the two-year course of study outlined on pages 301-302. Work done in some other recognized school of pharmacy may be accepted for the first year of this course only.

He must obtain satisfactory marking in attendance, making a grade of D or better in each course, and submit a satisfactory thesis.

For the Degree of Doctor of Pharmacy

The degree of Doctor of Pharmacy is conferred upon graduates of this or some other recognized school of pharmacy upon the completion here of an additional year of residence work. They must pursue advanced work as outlined on page 302, must present evidence of at least two years of practical drug store experience gained under a registered pharmacist, and must present a thesis embodying the results of an original investigation.

For the Degree of Pharmaceutical Chemist

The requirements for the degree of Pharmaceutical Chemist are the same as those for the degree of Doctor of Pharmacy, with the exception that no practical experience in a drug store is necessary as a prerequisite.

Drug Store Experience

The North Carolina Board of Pharmacy requires of candidates for license to practice pharmacy evidence of not less than forty-eight months of practical drug store experience. However, it allows the work done in the pharmaceutical laboratories to count in lieu of drug store experience, such credit to be limited to twenty-four months. Up to this limit the college work counts month for month.

COURSES LEADING TO THE DEGREE OF GRADUATE IN PHARMACY

FIRST YEAR

Fall Quarter: Pharmacy 1, Botany 3, Chemistry 1.

Winter Quarter: Pharmacy 2, Pharmacy 4, Materia Medica 1, Chemistry 2.

Spring Quarter: Pharmacy 3, Pharmacy 5, Materia Medica 2, Pharmacology 9.

SECOND YEAR

Fall Quarter: Pharmacy 11, Pharmacy 27, Chemistry 35, Pharmacology 10.

Winter Quarter: Pharmacy 12, Pharmacy 14, Pharmacy 16, Pharmacy 28.

Spring Quarter: Pharmacy 13, Pharmacy 15, Pharmacy 29, Research.

THIRD YEAR

The work of the third year is largely chemical in nature carrying certain required and elective courses, the electives depending upon the particular field each student is preparing to enter. A minimum of three full courses must be pursued each quarter.

REQUIRED COURSES

Pharmacy 20-21-22
Chemistry 61-62
Chemistry 41-42

ELECTIVE COURSES

Chemistry 47
Chemistry 8
Bacteriology
Chemistry 11-12-13
Chemistry 45-46

COURSES OF INSTRUCTION

Pharmacy

1-2-3. THEORY AND PRACTICE OF PHARMACY.

This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary; metrology, communication, heat evaporation, distillation, sublimation; fusion, calcination, granulation, oxidation, reduction, etc.; solution of solids, liquids, and gases; deliquescence, efflorescence, etc.; colation, filtration, decolorization, clarification, precipitation, etc.; maceration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodions, tinctures, wines, vinegars, and fluidextracts. Text-book: Remington's *Theory and Practice of Pharmacy. Five hours a week, fall, winter, and spring quarters.* Professor Howell.

4-5. OPERATIVE PHARMACY. Corequisite, Pharmacy 1-2-3.

This course is designed to demonstrate the various operations outlined in Pharmacy 1-2-3, and to drill the student in the correct preparation or manufacture of the galenicals and simple salts of the Pharmacopoeia. He is required to make under the direction of the instructors, those preparations which enter into a prescription, and is taught the correct uses of the different apparatus required in a

drug store. Text-book: Remington's *Theory and Practice of Pharmacy. Six hours a week, winter and spring quarters.* Professor Kyser and Messrs. Ward and Whitehead.

11-12-13. THEORY AND PRACTICE OF PHARMACY. Prequisite, Pharmacy 1-2-3.

The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. *Five hours a week, fall, winter, and spring quarters.* Professor Howell.

14-15. OPERATIVE PHARMACY. Corequisite, Pharmacy 11-12-13.

A laboratory course, supplemented by preliminary lectures, that is concerned with the manufacture of the pharmacopoeial drugs and chemicals, together with methods for determining their purity and strength, and also with prescription practices in general. The subject of incompatibility is fully dwelt upon, as are mechanical matters such as labeling and wrapping of containers, packages, etc. *Six hours a week, winter and spring quarters. Laboratory fee, $10.00 a quarters.* Professor Beard and Messrs. McDonald and Ross.

16. URINARY ANALYSIS.

By means of laboratory work, supplemented by lectures, the student is drilled in making qualitative and quantitative analyses of urine. The phenomena of urine secretion and elimination and the physiological and pathological constituents of urine, with exhaustive tests for determining the presence or absence of these constituents, are fully dwelt upon. In addition, the student is taught to select and arrange the apparatus required to make urine analyses in the drug store. Text-book: Hawks' *Physiological Chemistry. Three hours a week, winter quarter.* Professor Beard.

20-21-22. MANUFACTURING PHARMACY.

Pharmacy 20 is concerned with the commercial manufacture of pharmaceuticals, chemicals, and specialties, i.e., tablet and pill coating, granulation, grinding, extraction, distilling, drying, finishing, etc. Plant location, construction, machinery. Raw materials, packages, marketing, order routing, standardization, laboratory control, and shipping are given consideration.

Pharmacy 21 deals with the source and method of obtaining perfumes and materials used in the manufacture of extracts, toilet waters, powders, creams, rouges, tooth preparations, soaps, skin treatments, etc. Attention will be given to trademarks, copyrights, packages, labels, marketing, and advertising.

Pharmacy 22 is a technical course in the methods of analysis of official crude drugs, preparations, and chemicals; the analysis of commercial products and toilet articles, tablets, pills, etc.

Each of these courses is supplemented with laboratory manufacture and chemical analysis. Text-book: *United States Pharmacopeia and standard reference books. Five hours a week, fall, winter, and spring quarters. Laboratory fee, $5.00 a quarter.* Professor Kyser.

27-28 29. COMMERCIAL PHARMACY.

In presenting this practical course, the dominating motive is to train students to think in terms of drug store ownership rather than clerkship, and to think independently. The class is led progressively through the various phases of retail drug store operation, beginning with the location of a store site and ending with ten lectures on pharmaceutical jurisprudence by members of the Law School faculty. Each students is expected to subscribe for three leading drug journals and to purchase at least two refereuce books on retail store management. *Three hours a week, fall, winter, and spring quarters.* Professor Beard.

Materia Medica and Pharmacology

1-2. MATERIA MEDICA.

The individual drugs are considered from the standpoint of their origin, history, appearance, structure, active principles, chief medicinal properties, official preparations, and doses. These drugs are grouped and studied according to the families to which they belong. Later they are classified into the therapeutic groups, based on their action, i.e., whether they are stimulants, alteratives, irritants, astringents, etc. The subject is amply illustrated from the large collection of the School, which includes all the drugs of the Pharmacopoeia, as well as many unofficial plant parts; by means of colored plates and pictures, and from the library, which contains a large number of valuable books on the subject. Text-book: Culbreth's *Materia Medica. Five hours a week, winter and spring quarters.* Professor Beard.

9. PHARMACOLOGY.

A study of the functions of the normal human body and a consideratiou of how these functions are modified by the action of drugs. Laboratory experiments are conducted by the instructor to demonstrate the more important physiological reactions of the lower animals, frogs, turtles, and cats. *Lectures, three hours a week, spring quarter.* Professors MacNider and McKuight.

10. PHARMACOLOGY. Prerequisites, Materia Medica 1-2, and Pharmacology 9.

This course is concerned with the physiological and therapeutic action of drugs both upon man and upou lower animals. Prior to this work the studeut has completed Materia Medica 1-2 which is concerned with a study of the physical aud chemical properties of drugs, their preparatious, dosage, and a brief statement of their effect. This course in Pharmacology is intended to amplify and give in a more detailed fashion an understanding of the way in which the drug acts in normal

and in toxic quantities. A consideration of the biological standardization of drugs is also a part of this course. Text-book: Bastedo's *Materia Medica, Pharmacology, and Therapeutics. Lectures and laboratory, seven hours a week, fall quarter. Laboratory fee, $5.00.* Professors MacNider and McKnight.

Bacteriology

BACTERIOLOGY.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria; a few nonpathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus, two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text-book: Jordan. Reference: Park and McFarland. *Nine hours hours a week, fall quarter.* Professor Bullitt.

Botany

3. PHARMACEUTICAL BOTANY.

An introduction to the structure and classification of plants with special attention to the drug plants; localizing of the mucilages, gums, oils, resins, glucosides, alkaloids, etc. Lectures with laboratory and field work. *Six hours a week, fall quarter. Laboratory fee, $4.00.* Dr. Totten.

Chemistry

1-2. GENERAL DESCRIPTIVE CHEMISTRY.

Lectures and laboratory work. *Six hours a week, fall and winter quarter. Laboratory fee, $4.00 a quarter.* Professors Venable and Bell and assistants.

35. ANALYTICAL CHEMISTRY. QUALITATIVE AND QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 1-2.

Laboratory work and lectures. *Five hours a week, fall quarter. Laboratory fee, $10.00.* Professor Dobbins and assistants.

41. ELEMENTARY QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 35.

Gravimetric Analysis. Laboratory work, lectures and stoichiometric exercises. *Five hours a week, fall quarter. Laboratory fee, $10.00.* Professor Dobbins and assistants.

42. ELEMENTARY QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 41.

Volumetric Analysis. Laboratory work, lectures and stoichiometric exercises. *Five hours a week, winter quarter. Laboratory fee, $10.00.* Professor Dobbins and assistants.

61. ORGANIC CHEMISTRY. Prerequisite, Chemistry 35.

The Aliphatic Series. *Five hours a week, spring quarter. Laboratory fee, $7.00.* Professor Wheeler and assistants.

62. ORGANIC CHEMISTRY. Prerequisite, Chemistry 61.

The Carbocyclic and Heterocyclic Series. *Five hours a week, fall quarter. Laboratory fee, $7.00.* Professor Wheeler and assistants.

73a. TOXICOLOGY. Prerequisite, Chemistry 35.

The chemical and physiological behavior of poisons and their separation from foods and animal tissues. *Six hours a week, spring quarter. Laboratory fee, $5.00.* Professor Kyser.

PRIZES

THE BRADHAM PRIZE, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

THE BEARD PRIZE. To the student who makes the best general average during the two years of study and who passes the North Carolina Board of Pharmacy examination will be given a membership in the North Carolina Pharmaceutical Association.

Prizes will also be given:

1. For the best thesis.
2. For the best collection of native medicinal herbs.
3. For the best exhibit of chemical salts made by a second-year student.
4. For the best work in the recognition of materia medica specimens.
5. To the student recognizing the largest number of pharmaceutical preparations.

PHARMACEUTICAL LABORATORIES

See page 37.

WILLIAM SIMPSON PHARMACEUTICAL SOCIETY

This society was inaugurated by the Class of 1913. It is named in honor of the late William Simpson, of Raleigh, a pioneer druggist and teacher.

The society holds weekly meetings. At these meetings papers are read by the various student members, and discussions of the papers follow. At stated intervals, debates are held on subjects of particular interest to pharmacists.

ONE-HUNDRED AND TWENTY-EIGHTH COMMENCEMENT
1923

Sunday, June 10th

Baccalaureate Sermon

Rev. Plato Tracy Durham, D.D.

Sermon Before the Young Men's Christian Association

Rev. William D. Moss, D.D.

Monday, June 11th

Senior Speakers

Abdo Frank Essie — James Yancey Kerr

Victor Vernon Young

Tuesday, June 12th

Alumni Exercises

Reunions of the Classes of 1853, 1863, 1883, 1893, 1898, 1903, 1908, 1913, 1918, 1922.

The Debate by Representatives from the Dialectic and Philanthroptic Literary Societies

Dialectic	*Philanthropic*
C. A. Peeler	Z. T. Fortescue
W. F. Somers	C. E. Spencer

Wednesday, June 13th

The Commencement Address

The Honorable George Gordon Battle

Presentation of Diplomas

His Excellency, Cameron Morrison

DEGREES IN COURSE

Bachelors of Arts

Charles Hall Ashford
Nathan Carl Barefoot.
John Thomas Barnes
John Thomas Barnes, Jr.
Edward Wall Barr
Jesse Jordan Beale
Clayton Giles Bellamy
Catherine Cole Boyd
John Hugh Bradford
John McKinley Brown
Roy Eugene Brown
Gaston Swindell Bruton
Herman Jennings Bryson
†Daniel Clifton Butler
Kansas Byers
*Dan Byrd
William McNeill Carpenter
Curtis Calvin Carroll
Samuel Murston Cathey
Wilton Cathey
John Cheesborough Cheesborough
William Ernest Comer
Junius Horner Cooper
Amos J. Cummings
Henry Carrington Cuningham
George Graham Dickson
Annie Virginia Duncan
John Bruce Eagles
Preston Hampton Edwards, Jr.
Henri Bruce Ellis
Abdo Frank Essie
†William Frank Falls
Robert Lee Felton, Jr.
*†Manly Fulcher
William Hayes Gaither
Willie Clay Grose
Jonathan Greene Gullick
Douglas Hamer, Jr.
Martha Lozette Hamilton
Olin Carlton Hendrix
Jacob Frank Highsmith, Jr.
Howard Holderness
Edwin Clyde Hunt
Webb Hunter Huss
Bernie Barton Calhoun Kesler
William Arthur Lillycrop
William Murray Linker
James Thomas Little
Thomas Arthur Little
*†Fernando Llorens
Zachary Fillmore Long
*Archibald McDowell, Jr.
Elizabeth Gregory McPherson
Charles Irving Matthews
John Henry Mendenhall
William Clayton Mitchum
Clifton Leonard Moore
*†George Dillon Morris
Mildred Eliza Morse
Artus Monroe Moser
Harold Dawes Parcell
William Vann Parker
Pearl Pendergraft
May Belle Penn
Mary Winifred Potts
Charles Percy Powell
Ralph Clay Price
Jesse Robert Rhue
*†James Lester Scholl
Cecil Cline Smith
Charles Henry Smith
William Leonidas Smith
Jack Holland Spain
†Irving Joseph Stephenson
Sterling Aubrey Stoudemire
John William Stribling
Annie Strowd
Ernest Haynes Thompson
Jane Bingham Toy
Thomas Turner, Jr.
Lula Valeria Uzzell
Pauline Uzzell
Leon Stephens Venters
Walter Clark Voorhees
Julius Jennings Wade
Mabel Duella Walker
Edward Payson Willard, Jr.
*Anderson William Womack

* Absent by permission.
† As of 1922

Claude Leon Ives
Ernest Cooper Jernigan
Haywood Benjamin Kendrick
James Yancey Kerr
Blackburn Buford Worsham
Marvin Pleasant Young
Victor Vernon Young

Honors in Language and Literature

Annie Virginia Duncan

Bachelors of Arts in Education

Robert Floyd Coats
†Burnie DeWitt Franklin
Thomas Clinton Lingerfeldt

Bachelors of Science in Chemistry

William Lee Brown
Lillie Fielding Poisson Cutlar
Grady Hill Leonard
Laurence Vermeule Phillips
Howell Grady Pickett
George Richard Stout
Thomas Kent Thomas

Bachelors of Science in Medicine

Edgar Vernon Benbow
Corbett Ethridge Howard
Ashley Curtis Norfleet
*Fred Marion Patterson

Bachelors of Science in Civil Engineering

Truss Bostick Gunter
Reginald Cameron May

Bachelors of Science in Electrical Engineering

Thomas Weldon Angel
William Croon Boddie
Everett Edward Dellinger
Barney Edison Humphrey
Rufus Guyn Koontz
Carl Glenn Mauney
William Curtis Moore, Jr.
Robert Clayton Rike
Harold Lacey Ross
Calvin Upshur Smith
Christopher Rush Stroup

Bachelors of Science in Commerce

Wyatt Rudolph Aydlett
Garvin Bowles
Vardaman Moore Buckalew
Milton English Burleson
George Vernon Denny
Roland Byerly Eutsler
James LeGrand Everett, Jr.
Willie Floyd Gattis
Thomas Pegram Graham
Percy Granville Grant
Walker Avery Lemmond
Allan Marshall McGee
Carl Kampen Mahler
Hubert Neville
Albert Summey Orr
Peter Augustus Reavis, Jr.
Norman Westbrook Shepard
Ernest Raeford Shirley
Ralph Edward Spaugh
Hearne Swink

* Absent by permission.
† As of 1922.

Robert Henry Griffith
Thomas Simmons Howard
George Penn Hunt
Sidney Johnston Lane, Jr.
William Francis Toms
Colon Edgar Williams
Jesse Graves Yates

Bachelors of Arts and Laws

Luther Thompson Hartsell, Jr.
Raleigh Bradford Lee

Bachelors of Laws

John Wesley Foster
Preston Winfield Herman
Paul Dominic Herring
Dawson Emerson Scarborough

Graduates in Pharmacy

Jacob LeRoy Alderman
John Harper Best
†Herbert Otis Champion
William Franklin Craig
Bagwell Sutton Goode
Ralph Aaron Hales, Jr.
Samuel Cannady Hall
Alexander Lacy Hogan
Thomas Ruffin Hood
Herbert Rhodes Laidlaw
Lewis Marion Lamm
Robert Houston Milton
Walter Wellington Parker
Laurie Brittain Poole
Edwin LeRoy Reaves
Jefferson Reeves
*Frank Robinson, Jr.
George Washington Carr Rush
Sam Sowell
Paul Herman Thompson
John Everett Tilly
Guy Oscar Tripp
Almond Percy Westbrook
David Jackson Womble
Simeon Mayo Wrenn

Pharmaceutical Chemist

Dinker Bapuji Kirtiker

Masters of Arts

*Victor Vard Aderholdt
*Clayton Brown Alexander
Harold Clyde Amick
Roy Ritter Anderson
Wade Hampton Atkinson, Jr.
Sybil Barrington
Cecil Kenneth Brown
John Wiley Coker
Robert Alexander Davis, Jr.
Frederick Mast Dula
Flora Harding Eaton
John Grady Eldridge
William Everett Giles
Arthur Gwynn Griffin
Minnie Etta Harman
John Thomas Hatcher
Henry Arthur Helms
Sadie Junius Husketh
Genevieve MacMillan
Samuel Aubrey Mauney, Jr.
Charles Bowie Millican
Henry Bascom Mock
*Vivian Monk
Cora Jenkins Moss
Garland Burns Porter
George Branson Robbins
*Julia Cherry Spruill
Frank Thornber Thompson
Samuel Hunter Thompson
Carl Hampton Walker
Daniel Jay Whitener

* Absent by permission.
† As of 1922.

Masters of Science

John Alpheus Bender
Ernest William Constable
Horace Downs Crockford
Joe Levy McEwen
Ernst Otto Moehlmann
Roy Jay Morton
William Brittingham Smoot

Doctors of Philosophy

Edwin McCoy Highsmith, Thesis: Some Practices and Tendencies in Administration of Curricula in American State Normal Schools.

Edwin Samuel Lindsey, Thesis: The Use of Music in the English Drama.

Samuel Clement Smith, Thesis: The Constitution of the N N'-B B B-Dichlorohydroxy-ethylidene-bis-nitroanilines.

Henry Roland Totten, Thesis: Studies in Fungi.

HONORARY DEGREES

Doctor of Divinity

Nathan Hunt Daniel Wilson

Doctors of Laws

Frank Page
Carter Glass
Walker Parker Stacy
Julian Shakespeare Carr

MEDALS, PRIZES, AND FELLOWSHIPS

The William Cain Prize in Mathematics—Z. T. Forteseue, Jr.

The Eben Alexander Prize in Greek—P. H. Edwards, Jr.

The Early English Text Society Prize—C. F. Gaddy.

The Callaghan Scholarship Prize in Law—P. D. Herring.

The Ledoux Fellowship in Chemistry—Alfred Boyles.

The Bradham Prize in Pharmacy—A. P. Westbrook.

The Hunter Lee Harris Medal—C. B. Colton.

The Ben Smith Preston Cup—J. J. Wade.

The Julian S. Carr Fellowship—A. F. Raper.

The Stanton-Byrd-McKinnon Memorial Medal in Freshman English—J. G. Simmons.

The Mildred Williams Buchan Scholarship in Philosophy—Madge Kennett.

The William J. Bryan Prize in Political Science—Julia Cherry Spruill.

The Graham Kenan Fellowship in Philosophy—Catherine Gilbert and J. C. Greenwood.

The American Law Book Company Prize in Legal Research—Andrew Joyner, Jr.

The Marvin Carr Prize in Chemistry—L. V. Phillips.

The J. W. Bailey N. C. Club Prize—D. E. Scarborough.

The Bingham Prize—C. E. Spencer.

The Mangum Medal—V. V. Young.

Elected to membership in the *Phi Beta Kappa Society*, 1923: George Edgar Newby, Jr., President; Jane Bingham Toy, Secretary; Earl Horace Hartsell, Gaston Swindell Bruton, May Belle Penn, William Henry Hold-

erness, Samuel Herbert Youngblood, Edward Payson Willard, Jr., Dalma Adolph Brown, Henry Davis Duls, Laurence Vermeule Phillips, William Wardlaw Gwynn, Arthur Franklin Raper, John Tillery Gregory, Zachariah Thomas Fortescue, Jr., William Talmadge Shuford, Annie Virginia Duncan, Cullen Bryant Colton, William Curtis Moore, Jr.

Elected to Associate membership in the *Society of Sigma XI*, 1923: John Alpheus Bender, Ernst Otto Moehlmann, Joe Levy McEwen, Horace Downs Crockford, Haywood Maurice Taylor, Gerald Raleigh McCarthy, Roy Jay Morton.

CERTIFICATES

Geology—Harold Clyde Amick, Herman Jennings Bryson, Carl Hampton Walker.

History and Government—John McKinley Brown, James Yancey Kerr, Lula Valeria Uzzell, Victor Vernon Young.

For List of Students 1923-4 see Catalogue 1923-4 bound in separate volume.

INDEX

Absences, 74.
Accountancy, Course in, 226.
Accounting, Courses in, 116, 253.
Administration, Officers of, 9.
Administrative Board of the College, 190.
of the School of Commerce, 217.
of the School of Education, 210.
of the School of Engineering, 205.
of the Graduate School, 239.
of the School of Applied Science, 200.
of the School of Public Welfare, 232.
of the School of Law, 278.
of the School of Medicine, 288.
of the School of Pharmacy, 299.
Admission to the University, 48.
Admission to Advanced Standing, 48.
to the College, 51.
to the School of Commerce, 52.
to the School of Education, 52.
to the School of Applied Science, 51.
to the School of Engineering, 52.
to the School of Law, 53.
to the School of Medicine, 54.
to the School of Pharmacy, 54.
to the School of Public Welfare, 52.
to the Graduate School, 53, 240.
of Women, 49.
Advanced Standing, Admission to, 48.
Advertising, etc., Course in, 223.
courses in, 119.
Agriculture, for Admission, 59.
Aid, Pecuniary, 65.
Alexander Prize in Greek, 70.
Alembic Club (Chemistry), 109.
Alumni Association, General, 100.
American Institute of Electrical Engineers, 96.
American Society of Civil Engineers, 96.
Anatomy, Courses in, 292.
Applied Science, School of, 200.
Apprenticeships, in School of Commerce, 230.
Arts, The College of Liberal, 190.
Assignment of Rooms, 73.
Association, The Young Men's Christian, 97.
Athletics, 30, 79.
Rules of Eligibility to, 79.
Athletics and Debating, 276.

Bachelor's Degree, *see Degrees.*
Bacteriology, Courses in, 296, 305.
Banking and Finance, Course in, 222.
Bible Study, Courses in, 98.
Bingham Prize in Debate, The, 70.
Biological Laboratory, The, 35.
Biology, Courses in, *see Botany and Zoology.*
Board, 64.
Bookkeeping, for Admission, 59.
Botany, Courses in, 104.
for Admission, 59.
Bryan Prize, The, 70.
Bryant Fund, The, 68.
Buildings, List of, 32.
Business Administration, Courses in, 118.
Law, Course in, 225.
Courses in, 122.
Business Organization, Courses in, 118.

Cain Prize in Mathematics, 71.
Campus Cabinet, 85.
Carolina Playmakers, 97.
Carr Prize in Chemistry, 71.
Centro Hispano, El, 95.
Cercle Francaise, Le, 94.
Certificates, Entrance by, 48.
Chapel Exercises, 30, 75.
Charter of the University, 26.

Chemical Laboratories, 34.
Chemistry, Bachelor of Science in, 201.
Courses in, 106, 253.
for Admission, 59.
Fellowship in, 65.
Journal Club in, 109.
Civics, for Admission, 59.
Civil Engineering, Bachelor of Science in, 208.
Courses in, 129.
Laboratories, 38.
Civil Engineers, Society of, 96.
Class Secretaries' Bureau, Alumni, 101.
College of Liberal Arts, 190.
Commencement, 307.
Commerce Club, 230.
Commerce, Bachelor of Science in, 220.
School of, 217.
Courses in, 116, 254.
Commercial Arithmetic, for Admission, 60.
Commercial and Industrial Relations, 275.
Commercial Geography, for Admission, 60.
Commercial Teaching, Course in, 227.
Committees of the Faculty, 24.
of the Trustees, 8.
Commons, *see Board.*
Community Development, 276.
Community Drama, 275.
Community Music, 275.
Comparative Literature, Courses in, 110.
Conditions, Examinations for the Removal of, 75, 77.
Consular Service, Course in Foreign Trade and, 226.
Contracts for Rooms, 73.
Coöperative Engineering Education, 206.
Correspondence and Class Instruction, 265.
Correspondence Courses, 270.
Correspondence Courses in Education, 216.
Council, The Student, 84.
Courses, Arrangement of, 72.
for Bachelor of Arts, 191.
for Bachelor of Arts in Humanities, 195.
for Bachelor of Arts and Laws, 279.
for Bachelor of Arts in Education, 211.
for Bachelor of Laws, 279.
for Bachelor of Science, 200.
for Bachelor of Science in Commerce, 220.
for Bachelor of Science in Engineering, 205, 208, 209.
for Master of Arts, 243.
for Master of Science, 244.
for Doctor of Philosophy, 245.
in Law, 281.
in Medicine, 292.
in Pharmacy, 302.
in School of Public Welfare, 238.
for Women's Clubs, 273, 274.
Correspondence, 270.
Method of numbering, 103.
Culture, General, 30.
Religious, 30.
Curriculum, *see Courses.*
Deans of Colleges and Schools, 9.
Debating and Athletics, 276.
Deems Fund, The, 67.
Degree of Bachelor of Arts, 190.
Bachelor of Arts in Humanities, 195.
Bachelor of Arts in Education, 211.
Bachelor of Arts and Laws, 279.
Bachelor of Laws, 279.
Bachelor of Science, 200, 205.
Bachelor of Science in Commerce, 220.
Doctor of Philosophy, 245.
Doctor of Pharmacy, 301.
Graduate in Pharmacy, 301.
Master of Arts, 243.
Master of Science, 244.
Pharmaceutical Chemist, 301.

Degrees, Courses Leading to, *see Courses.*
With Distinction, 197
Design of School Grounds, 277.
Deutsche, Verein, Der, 94.
Dialectic Literary Society, 91.
Directors of Alumni Association, 100.
Discipline, 30, 74.
Doctor of Philosophy, 245.
of Pharmacy, 301.
Dormitory Accommodation, 32, 64, 73.
Drawing, Courses in, 128.
for Admission, 59.

Early English Text Society Prize, 70.
Economics, Courses in, 113, 254.
Economics (Rural), Courses in, 182, 261.
Education, Bachelor of Arts in, 211.
Courses in, 123, 216, 254, 262.
Conspectus of Courses in, 215.
Correspondence Courses in, 216.
Extension Courses in, 216.
School of, 210.
Educational Research, Bureau of, 213.
Service and Research, 277.
Electives, System of, 192.
Electrical Engineering, Bachelor of Science in, 208.
Courses in, 132.
Laboratories, 39.
Electrical Engineers, American Institute of, 96.
Eligibility for Athletics, 79.
for Fraternities, 78.
Elisha Mitchell Scientific Society, 91.
Embryology, Course in, 293.
Engineering, Courses in, 128.
The School of, 205.
English, Courses in, 136, 256, 263.
Prizes in, 70, 71.
Requirements for Admission, 55.
Entrance requirements, 49.
Entrance, Subjects Accepted for, 50.
Equipment, 32.
Examinations, Absence from, 75.
regulations concerning, 74.
excuses from, 75.
for entrance, 48.
for removal of conditions, 76, 77.
Executive Committee of Alumni Class Secretaries' Bureau, 100.
Expenses in College, 61.
in School of Applied Science, 61.
in School of Engineering, 61.
in School of Education, 61.
in School of Commerce, 61.
in School of Public Welfare, 61.
in School of Law, 62.
in School of Medicine, 62.
in School of Pharmacy, 62.
in Graduate School, 61.
Extension Classes, 272.
Extension Courses in Education, 216.
Extension Division, 265.
Extension Lectures, 273.

Factory Organization, etc., Course in, 221.
Faculty, University, 11.
Committees, 24.
Summer School, 249.
Fees, Tuition, 61.
Laboratory, 62.
Laundry, 61, 62.
Fellows, Teaching, 23.
Fellowship, Ledoux, 65.
Fellowships, 65.
University Teaching, 241.
Finance, Courses in, 114, 118.
Foreign Trade and Consular Service, Course in, 226.
Foundation of the University, 26.
Fraternities, 78.
Free Tuition, 67.
French Club, The, 94.
French, Courses in, 177, 256.
Requirements for Admission, 58.

General Science, for Admission, 58.
Geography, Courses in, 145, 257, 263.
Commercial, for Admission, 60.
Geology, Bachelor of Science in, 202.
Geology, Courses in, 144, 257.
Prize in, 70.
Laboratories, 33.
German Club, The, 94.
German, Courses in, 147, 257.
Requirements for Admission, 58.

Government, of the University, 26.
student, 84.
course in, 158, 258.
Grades of Scholarship, 77.
Graduate Degrees, 243.
Graduate School, 239.
General Regulations, 241.
Graduate Work in Commerce, 228.
in Public Welfare, 236.
Graduation, 78.
Graham Kenan Fellowship in Philosophy, 65.
Greek, Courses in, 150, 258.
Requirements for Admission, 57.
Prize in, 70.
Grounds and Buildings, 32.
Gymnasium, The, 30.

Harris Memorial, 70.
Hazing, 74.
Hewitt Fund, The, 68.
High School Journal, 214.
Highway Engineering, Course in, 130.
Laboratories, 39.
Histology, Course in, 293.
Historical Society, The N. C., 93.
Historical Sketch of the University, 26.
History, Courses in, 153, 258, 263.
Requirements for Admission, 57.
Hogue Fund, The, 68.
Holt Fund, The, 68.
Home Study Courses, 270.
Honors, Courses for, 197.
in Language and Literature, 198.
Hospital, 33.

Incorporation, Act of, 26.
Information, General, 26.
Infirmary, 33.
Instruction, Courses of, 103.
in School of Commerce, 113.
in School of Education, 123.
in School of Law, 282.
in School of Medicine, 292.
in School of Pharmacy, 302.
in Summer School, 253.
officers of, 11.
Insurance, Course in Risk-bearing and, 224.
Italian, Courses in, 181.

Journal Club in Chemistry, 109.

Kenan Fellowship in Philosophy, 65.
Kerr, Prize, The, 70.

Laboratories, Biological, 35.
Chemical, 34.
Civil Engineering, 38.
Electrical Engineering, 39.
Geological, 33.
Mechanical, 41.
Medical, 36.
Pharmaceutical, 37.
Physical, 37.
Psychological, 38.
Laboratory Fees, 62.
Latin, Courses in, 160, 258.
Requirements for Admission, 57.
Law Review, North Carolina, 284.
Law, The School of, 278.
Requirements for Entrance, 53.
Courses, 282.
The Combined Degree, 279.
Prizes in, 286.
on Semester Plan, 280.
Students Clubs, 285.
Summer School of, 286.
Lectures, Public, 86.
Extension, 273.
McNair, 86.
School of Commerce, 230.
Southern Exchange, 90.
Weil, 88.
Ledoux Fellowship in Chemistry, 65.
Liberal Arts, College of, 190.
Library, The University, 43.
Literary Societies, 91.
Literature (Comparative), Courses in, 110.
Loan Funds, 67.

McNair Lectures, 86.
Mangum Medal, 70.
Manual Training, for Admission, 60.
Marketing, Course in, 222.
Courses in, 121.

Martin Fund, The, 68.
Masonic Loan Fund, The, 68.
Master's Degree, *see Degrees.*
Materia Medica, Courses in, 295., 304.
Mathematics, Courses in, 163, 259, 263.
Prize in, 71.
Requirements for Admission, 57.
Mechanical Engineering, Courses in, 134.
Bachelor of Science in, 209.
Laboratory, 41.
Medals and Prizes, 70.
Medical Attendance, 31.
Medical Laboratory, 36.
Medicine, Bachelor of Science in, 201.
School of, 288.
Courses offered in, 292.
Merchandising, Course in, 223.
Courses in, 120.
Mineralogy, Courses in, *see Geology.*
Minor Surgery, Course in, 293.
Mitchell Scientific Society, 91.
Modern Languages, *see German, French, etc.*
Municipal Administration, Course in, 227.
Murphey Club (Education), 214.
Museum, Biological, 35.
Geological, 33.
Music Clubs, 95.
Music, Courses in, 167, 259.
Musical Activities, 95.

Normal Courses, 262.
North Carolina Historical Society, 93.
North Carolina Club, The, 93.
Numbering Courses, Method of, 103.
Officers of Administration, 9.
Officers of Instruction, 11.
Orations for Graduation, 78.
Prizes for, 70.
Organization of the University, 29.
Organizations, The University, 91.

Pathology, Courses in, 297.
Pecuniary Aid, 65.
Pedagogy, *see Education.*
Personnel Management, Course in, 224.
Pharmaceutical Laboratory, 37.
Pharmaceutical Society, The William Simpson, 306.
Pharmacology, Courses in, 295, 304.
Pharmacy, Courses in, 302.
School of, 299.
for Medical Students, 294.
Philanthropic Literary Society, 91.
Philological Club, 94.
Philosophy, Courses in, 169.
Graham Kenan Fellowship in, 65.
Physical Diagnosis, Course in, 294.
Physical Education, Courses in, 264.
Physical Laboratory, The, 37.
Physical Training, 30.
Physics, Courses in, 170, 260.
Requirements for Admission, 59.
Physiography, Requirements for Admission, 59.
Physiology, Courses in, 294.
Requirements for Admission, 59.
Playmakers, Carolina, 97.
Political Science, Prize in, 70.
Power Plant, 41.
Pre-Dental Courses, 203, 204.
Pre-Medical Course, 203.
Press, The University of N. C., 46.
Preston Cup in Journalism, 71.
Prizes, 70.
Psychological Laboratory, 38.
Psychology, Courses in, 163, 260.
Public Lectures, 86.
Public Welfare, School of, 232.
Professional Courses offered, 238.

Reëntrance, Requirements for, 78.
Registration in University, 72.
Registration, Delayed, 72.
Regulations, 72.
Religious Culture, 30.
Requirements for Admission, Detailed, 55.
of Women, 49.
Requirements for Admission to
Advanced Standing, 48.
College, 51.
School of Education, 52.
School of Engineering, 52.
Commerce and Finance, 52.
School of Law, 53.

School of Medicine, 54.
School of Pharmacy, 54.
School of Applied Science, 51.
Graduate School, 53.
School of Public Welfare, 52.
Requirements for reëntrance, 78.
Risk-bearing and Insurance, Course in, 224.
Romance, Languages, Courses in, 177, 179, 181.
Rooms, Assignment of, 73.
Rural Social Science, Courses in, 182, 261.

Salesmanship, Course in Advertising and, 223.
Courses in, 119.
Sanitary Engineering, Laboratories, 39.
Courses in, 131, 135.
Schedule of Classes, Medical School, 298.
Scholarship, Grades of, 77.
Scholarships, 65.
School Arts, Courses in, 264.
School Grounds, Designs and Improvements, 277.
Schools, Deans of, 9.
Science for Admission, 58.
Science, School of Applied, 200.
Seely Fund, The, 68.
Self Help, 69.
Sermons, University, 90.
Simpson (William) Pharmaceutical Society, 306.
Situation of the University, 28.
Social Sciences, Rural, 182.
Societies, Literary, 91.
Sociology, Courses in, 183, 261.
Southern Exchange Lectures, 90.
Spanish Club, The, 95.
Spanish, Courses in, 179, 261.
Requirements for Admission, 58.
Special Students in Commerce, 229.
Standing (Grades), 77.
Stenography, for Admission, 60.
Student Council, The, 84.
Student Government, 84.
Summer School, 249.
Courses in, 253.
of Law, 286.
Surveys, Economical and Social, 276.
Swain Hall, *see Board.*

Teachers' Bureau, 214.
Teachers' Certificate, 213.
Teaching Fellowships, 241.
Theses in School of Pharmacy, 301.
Graduate School, 244, 247.
Toxicology, Course in, 292.
Transportation, etc., Course in, 225.
Trustees, 5.
Trustees, Committees of, 8.
Tuition Fee, 61.
Tuition, Free, 67, 211.
Typewriting, for Admission, 60.

University, Foundation, etc., 26.
University Extension Division, 265.
University of N. C. Press, 46.
University Sermons, 90.
University Organizations, 91.
University Teaching Fellowships, 241.

Victor S. Bryant Fund, The, 68.
Vocational Subjects for Admission, 59.

Weil Lectures, 88.
William Simpson Pharmaceutical Society, 306.
Women's Clubs, Courses for, 273, 274.
Wright Memorial Medal, 71.
Writing, Courses in, 264.
Year, The College, 29.
Young Men's Christian Association, 97.

Zoology, Courses in, 187.
Requirements for Admission, 59.